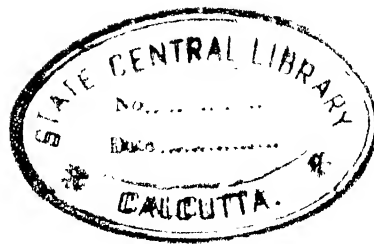


THE PRACTICAL
INFANT TEACHER

VOLUME IV



THE PRACTICAL INFANT TEACHER

A GUIDE TO THE MOST MODERN METHODS OF TEACHING
AND THE HAPPY OCCUPATIONS OF CHILDREN IN NURSERY
AND INFANT SCHOOLS

CONTRIBUTED BY LEADING AUTHORITIES IN EVERY BRANCH OF INFANT EDUCATION
WITH NUMEROUS ILLUSTRATED SCHEMES OF WORK AND PRACTICAL SUGGESTIONS

Edited by P. B. BALLARD, M.A., D.Lit. (Lond.)

Associate Editor F. R. BOYCE



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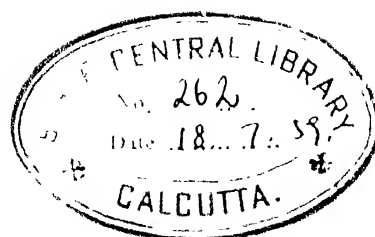
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CONTRIBUTORS TO VOLUME IV

MILDRED SWANSELL
MARJORIE CARNE HARBOUR
ANNIE T. MEUX
NANCY HENRY
V. M. JOHNSON
ELSH T. McGLASHAN

GERTRUDE FYLEMAN
ROSE FYLEMAN
R. K. AND M. POLKINGHORNE
M. J. WELLOCK
R. W. BURLEY
NAN YOUNGMAN



CONTENTS OF VOLUME IV

NATURE STUDY (*continued*)

By Mildred Swannell

(Illustrated by Elsie M. Starling)

SOME COMMON BRITISH BIRDS	PAGE 865
Bird visitors—Food and nests—Cock robin—The rooks—Which are crows?—The thrush—The blackbird—Nightingale—Skylark—The sparrow—The swallow—The starling—The seagull—Different kinds of nests—Classification of birds—The autumn migration—Constant birds—Suggested work in connection with bird life	
FAMILIAR FRIENDS OF THE SEASHORE	884
The beach—Seaweeds, red and green—The jellyfish—Sea anemones—Star fish—Sea urchin—Sea shells, mussels, scallops, the cockle—Limpets—Whelks, and other shells—Sand-hoppers—Shrimps—Crabs—Acorn barnacle—Fishing—Soles and plaice—The cod family—Mackerel and herring—The skate—Practical work connected with the seaside—Collections of shells, seaweeds, and pebbles, and different kinds of sands—Shore plants—Making boats—Co-operative models	
EARTH AND SKY KNOWLEDGE	898
Study of clouds, their composition and formation—Rain, snow, and dew—Day and night—Shadow and position of the sun—The time—The seasons—Wind and weathercocks—Making compasses—The weathercock—Holiday work—The tides—Wonders of the ocean—The mysterious poles—The whale—Flying fish, waterspout—Coral islands—Pearl fishery—The albatross—The mysteries of the sea	

ART AND HANDWORK

THE IDEAS UNDERLYING THE CONTEMPORARY APPROACH TO THE TEACHING OF DRAWING (<i>By Van Youngman</i>)	911
----------------------------------------------------------------------------------------------------------------	-----

A change of outlook—The underlying principles—The universality of the ideas—Drawing is an activity natural to all children—Children are concerned with the expression of an idea—Children must draw in their own way—What may be good in a picture which lacks photographic realism—Examples—Two languages—The visual image as a motive—Skill alone does not make a work of art—Adventitious values—The highest value in a work of art—Half-seeing—The child's fresh vision—Proportion—Primitive art—The judgment of a child's picture—Neatness—Accuracy—Recognition of the merit of children's drawings—The teacher's own standard of taste—Conclusions—Two pairs of pictures for comparison—No. 4 "The Picnic" and No. 5 "The Gossips," Nos. 6 and 7, paintings of heads

ART AND HANDWRITING IN THE INFANT SCHOOL (<i>By F. M. Johnson</i>)	924
--------------------------------------------------------------------------------	-----

Description of the school—The district—The parents—The school building—The aims of the school—The time-table—The under fives—Lunch—The over fives—The tools of knowledge—Freedom and activity

THE MEANING AND PLACE OF ART IN THE SCHOOL—Art and life—The defective art education of the past—The modern view—Art is not a mere representation—The child's point of view

INTRODUCTION TO ART WORK AND ITS EXPERIMENTAL STAGES IN 1932—The beginning—Materials—Arrangement of room—The size of the drawing—How large drawings were

secured—Class discussion—What was learnt from these early attempts—Lesson 2—An unsuccessful lesson—A picture story—The value of the method—The method spreads

DESIGNING—Introduction to the five-year olds—Stages of progress—What was learnt from this experiment

CURSIVE WRITING—False fears—How we started—The experiment extends—The effect on reading

POTATO PRINTING—A form of handicraft—A mode of teaching design—The social value of teaching design—How we began—The second lesson in potato printing—The third lesson—The cutting tools used—Progress

ART TO-DAY IN THE SCHOOL, 1934—Materials—Brushes—Paint—Mixing colours—Paper—Clayons and pencils—Freedom and ample space—Our conclusions—A few observations

PICTURE DRAWING AND PAINTING TO-DAY—Unity is not at first secured—Designing To-day, 1937—Suggested themes—How to stimulate a sluggish imagination—Cutting masks—A few suggestions—Writing to-day, 1937—The scribbling stage—From scribble to pattern—Early writing should be large—Kinds of rhythm—A few hints—Potato printing to-day—Points to consider before attempting this work—Suggested exercises

SILHOUETTE WORK AND SCISSOR PICTURES (*By Marjorie Carne Harbour*) 954

Pattern and picture making—Good examples—Pasting and gumming—Getting the best effects—Scissor pictures—Picture building in easy stages—Friezes for the classroom—Free expression in illustration—Decorative motifs, patterns, and borders—Geometric shapes—Exercise in pattern making—Motifs for needlework and handwork

STENCILLING (*By Marjorie Carne Harbour*) 963

Designing a stencil—Designs cut in paper—Cutting a stencil—Using a stencil—Preparing the colours—Spatter work—Gifts for taking home

PRINTING WITH WOOD BLOCKS AND LINO CUTS (*By Marjorie Carne Harbour*) 967

Printing on materials—Enormous cutting—Tracing and cutting the design—Printing with a lino cut

STICK PRINTING (*By Marjorie Carne Harbour*) 970

A form of wood block printing—Making the colour pads and patterns

MODELLING (*By Marjorie Carne Harbour*) 972

Plastic mediums—Potter's clay—Other modelling mediums—Tools and preparations for modelling—Modelling for the times—Helpful examples—Work for children of 5 years and over—First exercises—Building in easy stages—Armatures or framework—Nature modelling—Modelling in relief—Characteristics of growth—A lesson in plant modelling—Correlation to geography and history—Map making—Modelling and history—Pottery making

PAPER MODELLING (*By Marjorie Carne Harbour*) 988

Cutting and twisting—Folding and rolling—Soft tissue and crinkle papers

CONSTRUCTION WITH PAPER AND CARDBOARD (*By Marjorie Carne Harbour*) 991

Ground Forms—Examples

RAFFIA WORK (*By Annie F. Meua*) 996

Raffia winding—Table mats—Napkin rings—Using flat and tubular bases—A spoon basket—Raffia sewing—Various stitches—What children can make—Raffia weaving—Suitable looms—To make a slipper—Patterns in weaving—Raffia plaiting—Plaiting with even number of strands—Joining a strand—Articles made with plaited raffia—Plaited bags

CONTENTS

vii

PAGE

SIMPLE WAYS OF WEAVING (<i>By Elsie T. McGlashan</i>)	1013
Cardboard looms—Ring on loom—Bag loom—Loom for dolls' hammock or small bag—Simple wooden frame loom	
WOOL WORK (<i>By Elsie T. McGlashan</i>)	1017
Winding, knitting, and stitchery—Scheme of work—Baby's ball—Doll's clothing—Wool flowers—Teg cosy—Wool stitchery on canvas—Tringes	
NEEDLEWORK SUGGESTIONS (<i>By Gertrude Fyfe</i>)	1024
For the four and five year old—Suitable materials—Choice of needle and thread—Formal work for children of five and six—Making neat edges—Blanket stitch—Joining materials—For the child of six and seven—For small girls of seven to eight—Making seams—Working on coloured materials—Measurement applied to needlework—When eight years old—Design in needlework—Simple cutting out and garment making—Tying on—Co-operative work	
THE PROJECT METHOD (<i>By M. J. Wellock and R. W. Burley</i>)	1040
Definition of project—The project is the child's—The teacher's aim—How does a project begin?—Play with water and sand—Providing opportunities and materials to further interests—The question of when and in what order—Three types of project—How wide a field do projects cover?—Examples—Guidance necessary—Projects do not cover the whole curriculum—Widening a child's interests—A good example of expanding interests—How can sufficient practice be given in the tool subjects—Testing progress—Teaching desirable—A home life project—Homes or shops—The children's parents—Windows—Shops—The increasing interest in shops—Discussions—Outcomes of this project—A fair project—Division of labour—Discussion—Helpful suggestions from the children—Co-operation of parents—The class-room becomes a workshop—The fair is opened—Christmas party project—Making toys for the babies—Other activities—Invitation to the babies—Refreshments—The party—Musical dramatization—Some outcomes of this project—Cinema project—The project develops—The performance—Outcomes of the project—Harvest festival—Suggestions accepted—Some of the general outcomes of this project to the school as a whole	
MODEL MAKING FOR CO-OPERATIVE WORK (<i>By Marjorie Carne Harbour</i>)	1050
Dock models—Railway station—Market village—Horse and cart—A model fair—Trees—Swing boats—Switch-back railway—Gipsy caravan—Seaside model—Bathing machine—An ice cream barrow—A Japanese garden	
TOYS TO MAKE AND PLAY WITH (<i>By Elsie T. McGlashan</i>)	1077
Cardboard and matchbox furniture and toys—Stock of materials—Dolls' furniture—The house—Rugs—Toy-making—Band stand and merry go round—Spinning toys—Race game—Movement toys—Box stage—Dinah, the stocking doll	
GIFTS FOR THE GROWN-UPS (<i>By Elsie T. McGlashan</i>)	1088
Set of tins for kitchen use—Knife and cutlery boxes—Gift boxes—Candle shades—Bulbichies and "red-hot pokers"—Japanese trees and miniature garden—Soft toys for children	
HOLIDAY PROJECTS AND BOOKS (<i>By Elsie T. McGlashan</i>)	1091
For the boys—For the girls—From acorns, in cones, nuts, etc—From reeds or rushes—Interesting things made from feathers—Christmas decorations—Book-making—Holiday books—Picture mounting	
PUPPETS (<i>By Nancy Henry</i>)	1101
Introduction—A personal recollection—An incentive to the arts—Children's creative instinct—Practical considerations—Different kinds of puppets—Glove puppets—Method of	

holding the puppets—The glove puppet theatre—The table theatre—Large booth—Curtains—Back-cloths—The complete theatre—The puppets—The puppet glove—Costume design—Properties—The stage for cut-out figures—Scenery for cut-out figures—Lighting—The making of marionettes—The use of wire—Animals—The plays—Action—Fantastic action—Manipulation by children—Speech training—"The Best Nests"—"Old Woman and Cat"—"Prologue"—"A Christmas Prologue"—"Gretchen and Hans"—"In School"—"Bethlehem"—"Puppet's Epilogue"

POETRY

(*Illustrated by Frank Rogers*)

TEACHING POETRY TO YOUNG CHILDREN (<i>By Rose Fyleman</i>)	1125
Cultivating a taste for poetry—Selecting what children like—Poetry books in bygone days—Loving the lovely sound—Where to find good poems—What to avoid—Appreciation of good verse—The poet's word pictures—Feeling the rhythm—Children's reactions to poems—Reciting aloud—Teaching correct speech—Training the speaking voice—Matters of small importance—Interpretation and accent—Should action be used?—Writing poetry—Writing verses for children—To sum up	
POEMS FOR THE THREE TO FIVE-YEAR-OLDS (<i>By R. K. and M. Polkinghorne</i>)	1132
Music helps in teaching poetry—Nursery rhymes—Number poems—Other poems	
POEMS FOR THE FIVES AND SIXES (<i>By R. K. and M. Polkinghorne</i>)	1134
Read poetry to them—More nursery rhymes and poems	
POEMS FOR THE SEVENS AND EIGHTS (<i>By R. K. and M. Polkinghorne</i>)	1137
Imaginative and creative impulse—More poems	

NUMBER POEMS

THE DANDELION CLOCK. (<i>By E. M. Adams</i>)	1139
MY SHILLING. (<i>By E. M. Adams</i>)	1139
TEN LITTLE BIRDS. (<i>By Vera Bowyer</i>)	1139
THINK OF A NUMBER. (<i>By Olga Sheirson</i>)	1140
FINE APPLES (<i>By E. M. Adams</i>)	1140
EIGHT AT PLAY (<i>By E. M. Adams</i>)	1140

POEMS TO READ AND SAY

MORNING PRAYER. (<i>By Vera Bowyer</i>)	1141
JENNY. (<i>By Marion St. John Webb</i>)	1141
THE CAROL SINGERS. (<i>By Marion St. John Webb</i>)	1141
SHIPS GO SAILING (<i>By Marion St. John Webb</i>)	1141
THE DUSTY LITTLE WINDOW (<i>By Marion St. John Webb</i>)	1142
FINDINGS. (<i>By Olga Sheirson</i>)	1142
THE LITTLE TREE. (<i>By Vera Bowyer</i>)	1142
THE RAINBOW. (<i>By Olga Sheirson</i>)	1143
A COUNTRY WALK. (<i>By Olga Sheirson</i>)	1143
STAYING PUT. (<i>By Olga Sheirson</i>)	1143
THE MONTHS OF THE YEAR. (<i>By Vera Bowyer</i>)	1144

CONTENTS

ix

TYROLEAN TALES—

	PAGE
(1) THE GNOMES. (<i>By I. K. Nagel</i>)	1145
(2) HARVEST TALE. (<i>By I. K. Nagel</i>)	1145
(3) THE WEAVER. (<i>By I. K. Nagel</i>)	1146

POEMS TO SAY AND ACT

THE POSTMAN. (<i>By Vera Bowyer</i>)	1146
THE GARDENER. (<i>By Vera Bowyer</i>)	1147
THE ROAD MENDER. (<i>By Vera Bowyer</i>)	1147
THE BUS CONDUCTOR. (<i>By Vera Bowyer</i>)	1147
THE BAND. (<i>By E. M. Adams</i>)	1147
HELPING MOTHER. (<i>By Olga Sheirson</i>)	1148
TEA-TIME. (<i>By Olga Sheirson</i>)	1148

POEMS THAT EVERY CHILD SHOULD KNOW

I SAW A SHIP A-SAILING. (<i>Old Rhyme</i>)	1149
COME LITTLE LEAVES. (<i>By J. Cooper</i>)	1149
LONG TIME AGO, OR LITTLE KITTY. (<i>By E. Prentiss</i>)	1149
SLEEP, BABY, SLEEP. (<i>From the German</i>)	1150
THE FAIRY. (<i>Shakespeare</i>)	1150
GOOD-NIGHT AND GOOD-MORNING. (<i>By Lord Houghton</i>)	1150
TO THE LADYBIRD. (<i>By C. B. Southey</i>)	1151
LADY MOON. (<i>By Lord Houghton</i>)	1151
SEPTEMBER. (<i>By M. Hewitt</i>)	1151
TWINKLE, TWINKLE, LITTLE STAR. (<i>By Jane Taylor</i>)	1151
THE DANDELION. (<i>By Mrs. Erskine</i>)	1152
BUMBLE-BEE AND CLOVER	1152

ILLUSTRATIONS

NATURE STUDY (*continued*)

SOME COMMON BRITISH BIRDS

	FIG	PAGE
A BIRD TABLE FOR WINTER DAYS	88	866
BIRDS' FOOD CHART	89	867
PLAN OF BIRDS' NESTS IN A SURRLY VILAGE	90	868
ROBINS AND THEIR NEST	91	869
ROOKS	92	871
THE THRUSH	93	873
A BLACKBIRD	94	874
THE NIGHTINGALE SINGS TO THE MOON	95	875
THE SKYLARK	96	876
SWALLOW	97	877
STARLING	98	879
SEAGULLS IN WINTER	99	880

FAMILIAR FRIENDS OF THE SEASHORE

SEA WEEDS	100	885
GREEN AND OLIVE SEAWEDS	101	885
JELLY FISH IN OPEN SEA, SHOWING FOUR LIPS	102	886
SEA ANEMONES	103	887
SEA ANEMONES	104	887
STAR FISH	105	888
SEA SHELLS: BIVALVES	106	889
SHELLS: UNIVALVES	107	891
SAND-HOPPER (ENLARGED)	108	892
HERMIT CRAB IN WHELK SHELL	109	893
THREE STAGES IN THE DEVELOPMENT OF THE PLAICE	110	894
(a) SMALL COD, (b) LARGE HADDOCK, (c) WHITING	111	895
MERMAID'S PURSE	112	896

EARTH AND SKY KNOWLEDGE

CLOUDS	113	899
SNOWFLAKES (ENLARGED)	114	900
TO ILLUSTRATE DAY AND NIGHT	115	901
SUNDIAL	116	902
TO ILLUSTRATE THE SEASONS	117	902
PLAN OF PLAYGROUND TO SHOW DIRECTION	118	903
PAPER COMPASS	119	903
TOY COMPASS	120	904
CHILD'S CALENDAR FOR ONE WEEK	121	905
WHEN TIDES ARE HIGH	122 <i>a</i>	906
WHEN TIDES ARE LOW	122 <i>b</i>	906
THE WHALE	123	907
FLYING FISH	124	908
PENGUINS	125	909

ART AND HANDWORK

COLOUR PLATES

		PAGE
"A MOTHER LOVING HER CHILD" (By a girl of 13)	1	914
"MADONNA AND CHILD." (From a cheap Christmas Card)	2	915
"MOTHER." (By a child of 5)	3	915
"THE PICNIC." (By a girl of 12)	4	918
"GOSSIPS." (By a girl of 13.)	5	918

	FIG.	PAGE
"HEAD." (By a girl of 13.)	6	919
"PORTRAIT FROM LIFE." (By a girl of 12.)	7	919
"THE CIRCUS." (By John, aged 7 years 3 months, size of original 20" × 15".)	8	922
"THE FLOWER SELLER." (By Teddy, aged 7 years 9 months, size of original 25" × 20".)	9	922
"WINDOWS." (By Freddy, aged 3 years 9 months)	10, 11	923
(By Charhe, aged 4½ years)	12, 13	923
"MOTHER." (By Jimmy, aged 6 years, size of original 20" × 12")	14	926
"KILLING A WILD PIG" (By Arthur, aged 7 years, size of original 20" × 15". Drawn during the morning and painted before 2 p.m.)	15	926
"MOTHER." (By Derek, aged 6 years, size of original 15" × 10".)	16	927
"THE JAZZ BAND" (By Teddy, aged 6 years 10 months, size of original 30" × 20".)	17	930
"DOLLS' WASH DAY." (By Betty, aged 5½ years, size of original 20" × 15")	18	930
"FATHER IN THE BATHROOM" (By Keith, aged 7 years 4 months, size of original 20" × 15". Drawn and painted during the morning free period)	19	931
"ARCH OF ROSES." (By Ann, aged 6 years, size of original 20" × 12")	20	931

DESIGNS AND PATTERNS

By RONNIE, aged 7 years, size of original 20" × 15" (Half only reproduced)	A	934
By MONICA, aged 6½ years, size of original 20" × 15" (Half only reproduced)	B.	934
By ARTHUR, aged 7½ years, size of original 15" × 15"	C	934
By FRED, aged 7 years 3 months, size of original 20" × 15". (Half only reproduced)	D	934
By JOHN, aged 5 years 11 months, size of original 20" × 15" (Half only reproduced)	E	935
By DAPHNE, aged 6 years 1 month, size of original 20" × 15" (Half only reproduced)	F	935
By JOYCE, aged 6 years 8 months, size of original 20" × 15" (Half only reproduced)	G	935
By FREDA, aged 6 years 9 months, size of original 20" × 15" (Half only reproduced)	H	935
By A BOY AGED 7½ YEARS (Alternate lines of potato and carrot)	I	938
By A BOY AGED 7 YEARS (Potato print.)	J.	938
POTATO PRINT	K	938
By A GIRL AGED 7½ YEARS (Potato print)	L	938
By A GIRL AGED 7 YEARS 9 MONTHS. (Potato print)	M	938
By FRED, aged 6 years, size of original 20" × 15"	N	939
By NORMA, aged 5½ years, size of original 10" × 15"	O	939
By DEREK, aged 3½ years, size of original 20" × 15"	P	939
By ALLAN, aged 5½ years	Q	939
By DOREEN, aged 7 years, size of original 20" × 15"	R	939
DOUBLE PAGE OF A CHILD'S ORIGINAL STORY BOOK, from the book of Arthur Jones, aged 7½ years. (Size of each page 13" × 9½".)		942
DOUBLE PAGE FROM THE ORIGINAL STORY BOOK OF ARTHUR BUTLER, aged 7½ years. (Size of original page 13" × 9½".)		943

PHOTOGRAPHS

MILK TIME AT THE MARLBOROUGH INFANTS' SCHOOL	1	925
BOY DRAWING LETTERS ON CLAY SLAB WITH LOBSTER CLAW	2	950

SILHOUETTE WORK AND SCISSOR PICTURES

LANDSCAPE BUILT UP IN PAPER CUTTING	1	955
PICTURE IN PAPER CUTTING	2	956
ILLUSTRATIONS IN PAPER CUTTING	3	957
FRIZES FOR THE SCHOOLROOM	4	958
BUILDING UP PICTURES IN PAPER CUTTING	5	960
BAG PATTERN	6	961
BOX PATTERN	7	961
LETTERS AND DESIGNS CUT FROM FOLDED PAPER.	8	962

ILLUSTRATIONS

xiii

STENCILLING

	FIG.	PAGE
STENCILLING AND SPATTER WORK	9	964
STENCIL AND SPATTER WORK COMBINED	10	965
STENCILLED DECORATION ON BOX AND LAMP SHADE	11	965
USEFUL GIFTS WITH STENCILLED DECORATION	12	966

PRINTING WITH WOOD BLOCKS AND LINO CUTS

LINO-CUT DESIGNS FOR PROGRAMMES OR BOOK COVERS	13	967
BLOCK MAKING AND PRINTING	14	968
LINO-CUT ILLUSTRATIONS BY CHILD OF 7	15	969
DECORATIVE EFFECTS WITH STICK PRINTING	16	970
SUITABLE FORMS FOR STICK PRINTING	17	971

MODELLING

MODELLING TOOL	18	973
WIRE CUTTER FOR CUTTING CLAY	19	973
ILLUSTRATIONS IN CLAY	20	974
FIRST EXERCISES IN ROLLING AND TWISTING	21	975
OBJECTS MADE FROM BALL FORMATION	22	977
SOME COMMON OBJECTS FOR MODELLING	23	978
MODELLING IN EASY STAGES	24	979
FRAMEWORK MADE FROM CORKS AND BENI WIRE, ON WHICH TO BUILD MODELS	25	981
ARMATURE FROM BENI WIRE AND CORKS	26	982
ARMATURE OF BEADS AND WIRE	27	982
MODELLING IN SECTIONS	28	983
MODELLING IN CONNECTION WITH GEOGRAPHY STORIES	29	984
MODELLING IN CONNECTION WITH HISTORY STORIES	30, 31	985, 986
MATCH-STICK FIGURES	32	987

PAPER MODELLING

PAPER MODELLING WORK FOR THE TINY ONES	33	989
THE CROCODILE'S HEAD	34	991
THE PIG'S HEAD	35	992
CHINESE PAGODA AND DIAGRAMS FOR FOLDING	36	993
CONSTRUCTION LINES FOR BOX OR HOUSE	37	993
HALL CHAIR OR BENCH	38	993
A SENTRY BOX	39	994
CONSTRUCTION OF WINDMILL	40	994
CARDBOARD CONSTRUCTION OF PIANO	41	995
CUT-PAPER MODELS	42	995

RAFFIA WORK

NAPKIN RINGS WHICH THE TINY ONES CAN MAKE	43	997
STRIP OF CARDBOARD AND FINISHED NAPKIN RING	44	997
DISCS COVERED WITH RAFFIA FOR USE AS MATS OR DECORATION	45	998
SHAPES COVERED WITH RAFFIA TO USE FOR DECORATION	46	999
SEPARATE UNITS USED FOR TRIMMING	47	999
PHOTO FRAME, NAPKIN RING, STRING BOX	48	1000
MAKING A BALL OF RAFFIA	49	1001
TRINKET TRAY AND HAIRPIN BOX	50	1002
METHOD OF SEWING ON LID	51	1002
BUTTON-HOLE STITCH	52	1002
A SPOON BASKET	53	1002
CANVAS FOR RAFFIA WORK	54	1003
RAFFIA STITCHING ON CANVAS	55	1004
SOME EFFECTIVE STITCHES IN RAFFIA	56	1005
SOME SUGGESTIONS FOR CHILDREN'S WORK	57	1006
SOME DETAILS OF RAFFIA WEAVING	58	1007
BAG AND SLIPPER LOOMS	59	1009
RAFFIA PLAITING	60	1010
HOW TO SEW A PLAITED BAG	61	1011

	FIG.	PAGE
BAG MADE FROM PLAITED RAFFIA	62	1011
A FAMILY OF GOATS FROM SWEDEN	63	1012
POST CARD LOOM	64	1013
LOOSE WEAVING, PRESSED TOGETHER (<i>a</i> AND <i>b</i>)	65	1013
RUG ON LOOM	66	1014
BAG LOOM	67	1014
LOOM FOR HAMMOCK	68	1014
TABBY WEAVE	69	1014
WARP STRIPE	70	1014
FRAME LOOM (<i>a</i>) FASTENING THE WARP, (<i>b</i>) WEAVING	71	1015

WOOL WORK

WOOL STITCHERY ON CANVAS	72	1017
METHOD OF MAKING WOOLLEN BALLS	73	1018
DOLL'S CLOTHES WHICH A CHILD CAN KNIT	74	1018
DOLL'S KNITTED BONNET	75	1019
TASSEL METHOD OF MAKING FLOWERS	76	1019
FINISHED MARGUERITE	77	1020
THE THISTLE	78	1020
STAGES IN MAKING A COWSLIP	79	1020
HOW TO MAKE A DAISY	80	1021
FLOWERS MADE ON BUTTON MOULDS AND BEECH NUTS	81	1021
WOOL FLOWERS MADE ON BUTTON MOULDS	82	1021
(<i>a</i>) USEFUL PATTERN FOR EGG COSY, (<i>b</i>) EGG COSY FINISHED	83	1022
HOW TO MAKE A SIMPLE FRINGE	84	1023
A FRINGE OF TASSELS	85	1023

NEEDLEWORK SUGGESTIONS FOR THE FOUR AND FIVE-YEAR-OLDS

CHILDREN'S DESIGNS CARRIED OUT IN STITCHERY, APPLIQUE, AND WAXED CRAYON	86	1025
FIRST EXERCISES IN TACKING STITCH	87	1026
A SAMPLER WITH TACKING STITCH DESIGNS	88	1027
THE FIRST NEAT HEM	89	1027
AN EASILY MADE BAG	90	1028
SIMPLE STITCHERY DECORATES THIS BAG	91	1028
MATERIAL FRINGED TO MAKE A TASSEL	92	1029

FORMAL WORK FOR THE CHILD OF SIX AND SEVEN

A NIGHTDRESS CASE	93	1030
A USEFUL GIFT FOR MOTHER	94	1030
(<i>a</i>) TABLE MAT, (<i>b</i>) HANDKERCHIEF SACHET	95	1031
DECORATIVE DESIGNS WITH TACKING STITCHES	96	1032
(<i>a</i>) CHAIN STITCH, (<i>b</i>) HERRINGBONE, (<i>c</i>) BLANKET STITCH	97	1033
EXERCISE IN HEMMING	98	1033
RUN AND FEEL SEAM	99	1033
CHILD'S OWN WORKBAG	100	1034

WHEN EIGHT YEARS OLD

CUTTING-OUT MOTIFS FOR APPLIQUE	101	1035
CUSHION SQUARE WITH APPLIQUED MOTIFS	102	1035
APPLIQUED MOTIFS	103	1035
TEA COSIES, A PRESENT FOR LITTLE BROTHER A TABLE MAT WITH APPLIQUED DESIGNS	104	1036
SUGGESTION FOR DOLL'S PRAM COVER	105	1037
RED INDIAN SUIT	106	1037
HOW TO CUT A PATTERN FOR MAGYAR FROCK AND KNICKERS	107	1038
MAGYAR FROCK	108	1038
A PINAFORE FOR LITTLE SISTER	109	1039
	110	1039

ILLUSTRATIONS

xv

THE PROJECT METHOD

	FIG	PAGE
A WEDDING. (Project worked out by children of 6 years of age.)	1	1040
CONCENTRATION	2	1041
A HOME LIFE PROJECT	3	1045
INTERESTED PARENTS WATCHING THE CHILDREN AT WORK	4	1046
PLAYING AT SHOPS	5	1047
THE WHOLESALE DEPARTMENT MADE BY THE FIVE-YEAR-OLDS	6	1047
WOOLWORTH'S STORES	7	1048
A CHILD'S PREFERENCE SHOPPING MAY LEAD TO THE STARTING OF A CLASS SHOP	8	1049
DOCKS AND LANDING STAGE MADE BY SIX-YEAR-OLDS	9	1055
A GROUP OF BOYS MAKING AEROPLANES	10	1057
A SCHOOL PROJECT AT HARVEST TIME	11	1058

MODEL MAKING FOR CO-OPERATIVE WORK

HOW TO MAKE A CRANE	12	1059
WAREHOUSE, TRUCK, AND CAPSTAN	13	1060
MODELS FOR THE RAILWAY STATION	14	1061
THE MARKET VILLAGE	15	1062
A VILLAGE SHOP	16	1063
THE VILLAGE CHURCH	17	1064
THE MILK CART	18	1065
AT THE FAIR	19	1066
FOR THE COCO-NUT SHY	20	1067
BOATS FOR THE SWING AND WATER SHOOT	21	1068
THE WATER SHOOT	22	1068
MODEL OF SWITCHBACK THE ENGINE AND CARRIAGES	23	1069
THE GIPSY CARAVAN	24	1070
CHILD'S MODEL OF "SEASIDE," BUILT UP ON THE SAND TRAY	25	1071
MODELS FOR THE SEASIDE	26	1072
CONSTRUCTION OF DECK CHAIRS	27	1073
BARROW FOR THE ICE-CREAM MAN	28	1074
A JAPANESE GARDEN (PAPIER MÂCHÉ FOUNDATION)	29	1075
THE BRIDGE FOR THE JAPANESE GARDEN	30	1076
CONSTRUCTION OF RICKSHAW	31	1076

TOYS TO MAKE AND PLAY WITH

CARDBOARD CONSTRUCTION OF TABLE AND CHAIR	32	1077
SOFA AND EASY CHAIR MADE WITH PAPER OR CARDBOARD	33	1078
DOLL'S CRADLE FROM CARDBOARD BOX	34	1078
A DESK AND BOOKSHELVES	35	1079
DOLL'S FURNITURE MADE FROM MATCH-BOXES	36	1080
DOLL'S HOUSE MADE FROM CARDBOARD	37	1081
RUG FOR THE DOLL'S HOUSE	38	1082
FIGURES FOR THE "CIRCUS"	39	1082
BANDSTAND AND ACCESSORIES	40	1083
THE MERRY-GO-ROUND	41	1084
REVOLVING TOYS AND SPINNING TOP	42	1085
"MOVEMENT" TOYS AND HOW TO MAKE THEM	43	1086
"CLOTHES PIN" CLOWNS FOR THE CIRCUS MODEL	44	1087
DINAH, THE STOCKING DOLL	45	1087

GIFTS FOR THE GROWN-UPS

LAMP SHADE OF PLEATED PAPER	46	1088
MAKING A BULRUSH	47	1089
PATTERNS FOR SOFT TOYS	48	1090

HOLIDAY PROJECTS AND BOOKS

CONSTRUCTION OF KITES	49	1092
LAVENDER CONE AND DOLL	50	1093
A PEA-NUT MONKEY	51	1093
A PEA-NUT MOUSE	52	1094

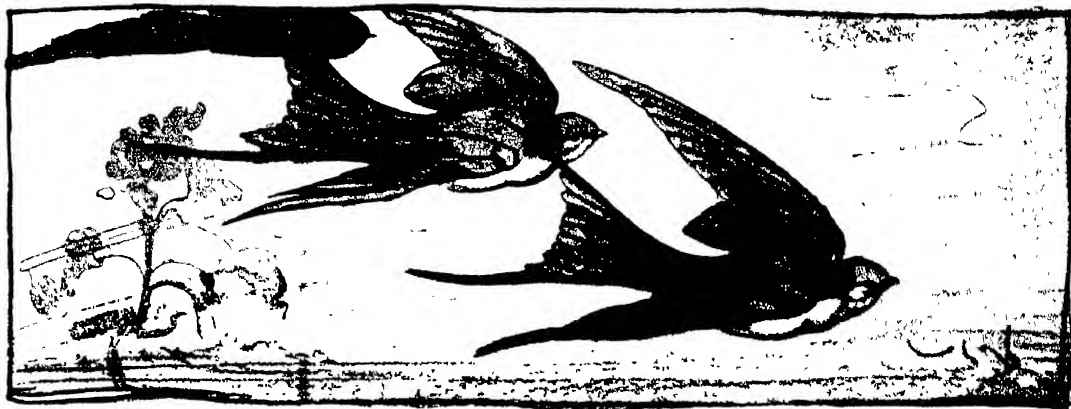
	FIG	PAGE
A ROBIN AND A PEA-NUT OWL	53	106
STORK MADE FROM FIR CONE	54	109
ACORN SNAKE	55	109
A REED BASKET	56	109
A SHUTTLE-COCK	57	109
WAR BONNET OF THE RED INDIANS	58	109
CUT PAPER DECORATIONS	59	109
VARIOUS KINDS OF BOOKS	60	109
TWO METHODS OF MAKING A PORTFOLIO	61	109
SIMPLE METHOD OF MOUNTING PICTURE AND BINDING EDGE	62	110

PUPPETS

PUPPETS	1	1101
METHOD OF HOLDING THE PUPPETS	2	1104
A SIMPLE THEATRE AND PUPPETS	3	1105
BACK OF THE THEATRE	4	1106
THE FRAMEWORK OF THE BOOTH	5	1107
THE BOOTH IN ACTION	6	1108
FIRST METHOD OF CONTROLLING CURTAINS	7	1108
SECOND METHOD OF CONTROLLING CURTAINS	8	1109
SIMPLE DESIGN	9	1109
A WOODEN HEAD	10	1110
MASK	11	1111
MASK SEWN ON TO BALL OF RAGS	12	1111
PAPIER MACHÉ HEAD	13	1111
FABRIC PUPPETS	14	1112
MORE PUPPETS	15	1113
METHOD OF CUTTING OUT AND MAKING FACES	16	1113
PUPPETS MADE BY TEN-YEAR-OLD CHILDREN	17	1114
A PUPPET GLOVE	18	1114
A SIMPLE PUPPET GLOVE	19	1114
THE IDEAL GLOVE	20	1115
A CUT-OUT FIGURE	21	1117
A MARIONETTE STAGE	22	1117
EASY METHODS OF MAKING MARIONETTES	23-24-25	1118

POETRY

" I WANDERED LONELY AS A CLOUD "	1126
THE LOST SHOE	1127
LITTLE MISS MUFFET	1132
GOOD NIGHT AND GOOD MORNING	1136
THE DANDITION CLOCK	1139
TEN LITTLE BIRDS	1139
FINE APPLES	1140
EIGHT AT PLAY	1140
SHIPS GO SAILING	1141
THE LITTLE TREE	1142
STAYING PUT	1143
A COUNTRY WALK	1143
THE MONTHS OF THE YEAR	1144
TYROLEAN TALES	1145
THE GARDENER	1147
THE BAND	1147
TEA TIME	1148
LITTLE KITTY	1149
SLEEP, BABY, SLEEP	1150
GOOD-NIGHT AND GOOD-MORNING	1150
TO THE LADYBIRD	1151
BUMBLE-BEE AND CLOVER	1152



SOME COMMON BRITISH BIRDS

ONE of the best times in the year to begin the study of bird life is in winter, when food is scarce, and our resident birds approach houses in search of crumbs and scraps.

It is not a difficult matter to put up and arrange a bird table (Fig. 88), so that the children can become familiar with the appearance and some habits of their feathered guests. The lid of a large wooden box, screwed to a pole, with hooks underneath, or a pole with a few cross bars nailed to it, makes a very satisfactory bird "table." It should be furnished with half coco-nuts hanging from hooks or bars, a lump of fat, a bone on which are scraps of meat, and some crumbs or seeds. In the country, children can collect ears of wheat or barley when cornfields are gleaned, and save them for this purpose. A bowl of water should be placed near, for birds are thirsty creatures, and in some parts of the country, as in large towns, water is not easy to find.

Bird Visitors

To such a feast blackbirds, thrushes, chaffinches, sparrows, robins, wrens, tits, and starlings are almost certain to come. Even in towns some of these may be expected, as well as pigeons, that roost on almost any large building; and these are quite sufficient to begin a study that may widen out into a very real and permanent interest.

The discovery of food in hard times makes birds tame, and it is surprising how much

information children can gather from daily observations made at odd times, extending over the winter months. They learn to distinguish cock from hen, and the different capabilities as to perching. Thus, while the tits can cling on anywhere, even to the underside of a swaying coco-nut, the robins and sparrows often attempt to do the same, but their feet cannot cling and they have, at last, to descend to the ground, where they pick up fragments of the tits' meal.

They learn to look for starling and thrush lurking rather on the outskirts, but making sudden rushes to secure a morsel. This may lead to a study of movements of birds; some, like sparrow and robin, can only hop; others, like pigeon and fowl, walk and run; while the starling can hop, walk, and run. On muddy or snowy days, footprints of birds may be examined, identified, and, where possible, drawn.

Even in winter birds may be seen bathing, and this may suggest chats on the necessity for keeping the plumage in good order, and the means of doing this by dust, sun, and water baths, by oiling the feathers and running the beak up the webs of the large wing and tail quills, and later on by shedding old and worn feathers and growing new ones.

Favourite Foodstuffs

The bird table may also start the study of foods chosen by different species, e.g. the sparrow selects crumbs and seeds, and the tit chooses

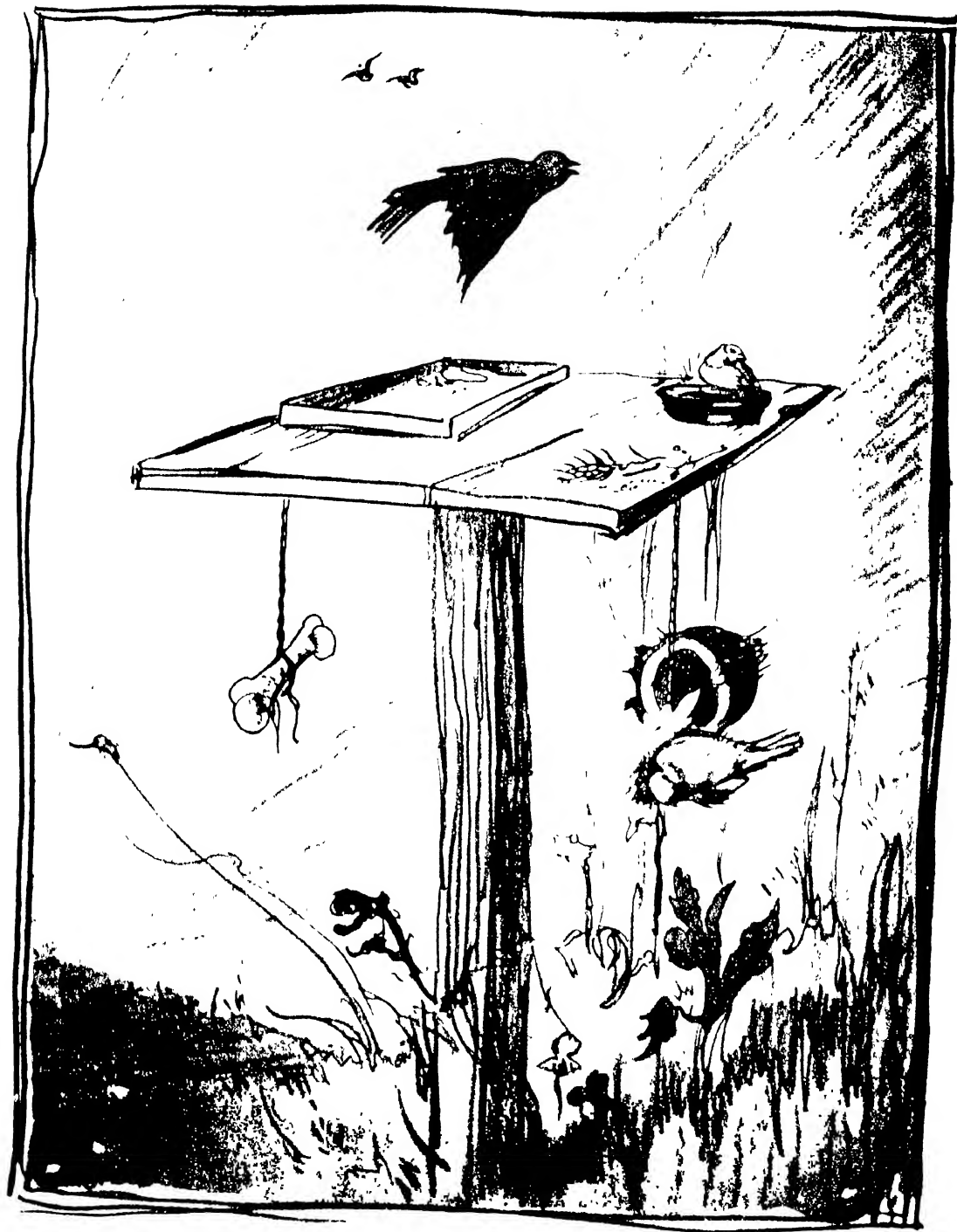


FIG. 88

1 Bird Table for Winter Days

nuts, fat, scraps of meat. As the year advances, the children should be encouraged to make observations on the plants and insects they see eaten by different birds, and some chart, as shown in Fig. 89 might be drawn up.

Higher up in the school, individual children may like to keep such a chart and add to it from year to year. Every blank space is a challenge to stimulate inquiry, and we have much to learn of how different birds secure, throughout the year, the vast amount of food each needs to keep up its incessant activity.

Birds' Nests (Fig. 90)

In winter, a good preparation may be made for the study of nests, and it is recommended that a few disused typical nests, e.g. of sparrow, robin, chaffinch, blackbird, should be obtained by the teacher for the children's close examination in the schoolroom, so that they may be able to recognize them later on *in situ*.

A certain district near the school might be decided upon for exploration, and the children

invited to look for, and report on, any nest. This will give a purpose, too often lacking in their rambles, and sharpen observation. When trees and bushes are leafless, nests heretofore screened are exposed, making it easier to gain some idea of the number and kinds of birds nesting in this particular area.

A chart should be worked out, and kept for comparison with one to be made during the following year. If several schools in a county were to co-operate, some valuable information might be collected. Town children should be advised to look on ledges of large buildings, on occasional trees, and in the parks.

The Dawn Chorus of May

Early in the year, a few birds begin to sing. Thrush, blackbird, and robin start the music that leads up to the Dawn Chorus of May that no townsmen, and comparatively few countrymen, hear in its perfection. Just as the faint light of dawn shows on the horizon, the thrushes make a soft beginning to the symphony, then

BIRDS' FOOD CHART

	Other animals	Snails	Slugs	Worms	Gnats	Flies	Daddy-long-legs	Cockchafer grubs	Caterpillars	Beetles	Aphides	Ants	Seedlings	Seeds	Peas	Hazel nuts	Haws	Hips	Groundsel	Fruit	Fruit buds	Flower buds	Elderberry	Corn	Chickweed	Blackberry	Bilberry	Beech mast	Acorn
Blackbird .		✓		×		×			✓								×	×		✓			✓			✓	×		
Owl .	✓																												
Pigeon .													×	✓	✓					×				✓					
Robin .																													
Sparrow .																													
Starling .																													
Seagull .																													
Nuthatch .																													
etc .																													

FIG. 89

wrens, tits, sparrows, and every song bird join in, forming a wonderful background of sound, against which are heard, as solos, the pure notes of blackbird, blackcap, nightingale, and others of our great bird songsters. It continues for about an hour, and then—silence. Although there is plenty of joyous singing throughout the day, there is none quite like that at dawn!

Some children are very interested in bird music, and it should not be difficult to help

tits will usually visit the coco-nuts, and sparrows rarely reject crumbs and seeds.

The life-history of a few birds should be followed as closely as possible, with a view to showing children how they can continue this study. For the teacher's use, notes on some of the commonest birds are given, but the facts should be brought before the children only at seasonable times, as when new observations are made and need enriching, or when questions

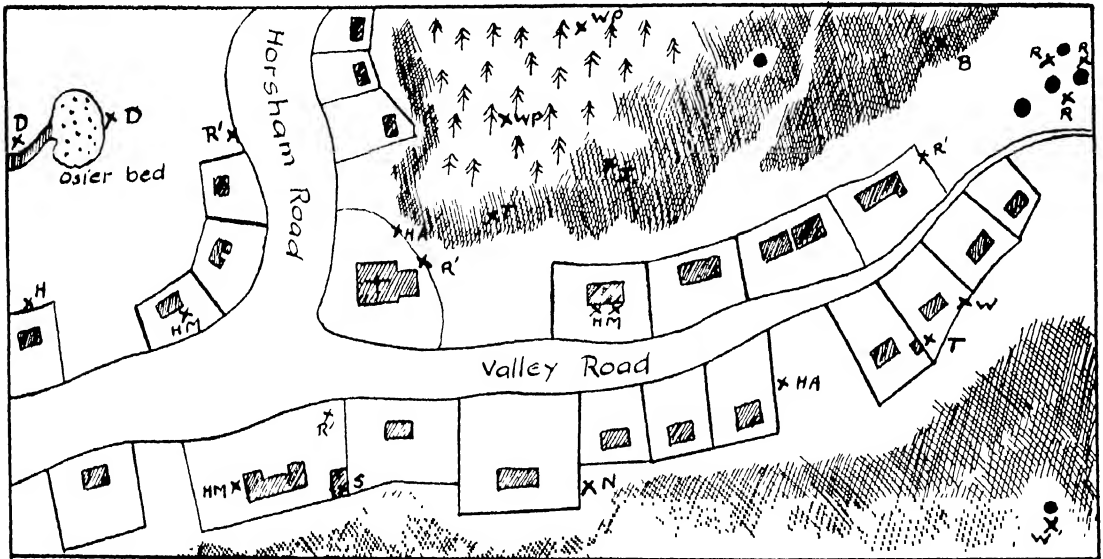


FIG 90

Plan of Birds' Nests in a Surrey Village

Shaded parts are scrub of oak, beech, birch, holly, with small firs on slopes of hills

B Blackbird	HM House martin	T Thrush
D Duck	N Nuthatch	W Wren
H Hen	R Rook	W' Woodpecker
HA Hedge accenter	R' Robin	WP Wood pigeon
	S Swallow	

these pick out the songs of lark, chaffinch, robin, blackbird, thrush, and nightingale.

In April, the return of our long-distance migrants is eagerly expected, and as each is recognized a date should be entered on the Nature Calendar. When this is kept for three or four years, children will see that, as a rule, each bird returns about the same time to a particular district. From now onwards, however enticingly the bird table may be arranged, few will take advantage of it. Other business presses, and natural food becomes increasingly plentiful. Should, however, late frosts occur,

are asked. At the end of the year, it may be useful to gather up all that has been noted into as complete a story as possible, and the children will take care that no detail of what they have seen is omitted.

Cock Robin

Perhaps first favourite is Cock Robin (Fig 91). We will begin his story in December and January, when he usually selects some place as a future nesting site and announces his discovery by an outburst of song. Should

another cock be near, he often challenges the first, and the vocal duel may end in a fight. No other robin is allowed near the chosen spot, which might be in a hollow in a bank, or a ledge formed by the root of a tree, or in some strange place, such as an old kettle, or pot, the hat of a

hen think she is being watched in her collecting, she will drop the fragment and fly off, for she is very shy at nesting-time

No child can mistake the robin, with its orange breast that looks so much redder than it really is because set off by a border of blue grey, and



FIG 91

Robins and their Nest

scarecrow, a biscuit tin, or a half coco-nut husk. (See Story on p 513)

By the beginning of March, or earlier in sheltered parts of the country, the pair of robins start making their nest of dried leaves, stalks, moss, and grass. These are moulded into the shape of a cup, but a characteristic of the robins' nest is that most of the material is placed in front. The lining is most frequently of horse hair or wool. It must be confessed that the hen does most of the work, but her mate sits where she can see and admire his bright breast, and hear his joyous, melodious song. Should the little

its olive back and wings. His mate is a little smaller and is less bright in colouring.

The Baby Robins

By mid-March, five or six eggs, reddish-white in colour, flecked with pale red, have been laid, and the hen settles down to twelve or thirteen days of incubation. The cock sings to her and often brings her a tempting morsel in the shape of a fat spider or worm, so that she need not leave the nest, except to stretch her muscles. Should the cock be long away, we may hear her drawn-out desolate call.

When the young are hatched, both parents are kept busy, for the babies must be fed on caterpillars, worms, and insects. We may see the anxious parents scrutinizing bushes and plants, and capturing a beakful of squirming creatures, before setting off to feed the clamorous babes, who need a meal at least once an hour.

In from twelve to fourteen days, the young are fledged and ready to leave the nest, and then begins one of the hardest parts of the parents' work, to educate the young to find their own food. When they leave the nest, they do not realize that they have to pick up their own flies, worms, etc.; they have always been accustomed to open their beaks, when an obliging parent has popped something in. It takes between two and five days for them to learn self-reliance.

As soon as the chicks can manage, the parents leave them under some hedges, that great nursery of bird babies, where they are screened from sight of enemies yet can find a plentiful supply of caterpillars and insects. Their coats of various shades of brown are the usual wear for all bird youngsters till after their first moult, and are splendidly protective. The parents now fly off and begin preparation for a new brood and the arduous work of rearing another family in a fresh nest.

Moulting Time

At the end of summer, the old birds seek some secluded part, such as a thicket or shrubbery, and there, sheltered from the sight of enemies, go through the uncomfortable and perhaps painful process of moulting, and no song is to be heard. But when they reappear, it is in a new bright dress, and the birds themselves are full of renewed vigour. They seek that part of the garden or hedge which they regard as their own, but often find their children have returned and seek to oust their parents, a state of things not to be tolerated. So Cock Robin has to fight and turn out the youngsters, who sometimes prove stronger than the father, in which case he must quit.

Early in autumn, the young birds may be said to come of age, for after a moult they take on the adult colouring, and begin to practise short

snatches of song that will develop into the winter music which heartens us in the dull days.

The Rooks (Fig. 92)

Our earliest nester is the rook. His choice of a suitable place is the top of a high tree, preferably elm, from whence he can get an uninterrupted view of sky and countryside. At the end of February and the beginning of March, these birds repair their old nests, which are made of sticks, securely interwoven with the branches of the tree, and are about two feet across. Old linings are torn out and replaced with new ones of dried leaves and moss.

This is a busy, noisy, and joyous time, with some rooks, possibly youngsters, starting a nest. Part of the game seems to lie in stealing twigs from their neighbours. This, of course, cannot be allowed, and after due warning we can often see the greater number of the rookery inhabitants leave their business and proceed to demolish the nest of the evil-doers, and either drive them away from the community or to a tree some distance away. This act of justice is accompanied by much forcible language.

When a pair of rooks are nest-building or repairing, it is usual for one to remain on guard while the other collects, because all are addicted to thieving.

The Rooks' Housekeeping

By mid-March, a familiar sight is the stick nests swaying in the high winds, while the head and tail of the mother are just visible. The father sits admiringly near, or seeks for food, which he brings her while she is occupied in the business of incubation. As he flies he calls steadily "caw-caw," "all's well," to which she replies, on a slightly higher note, "cor-cor."

Often we may hear them talking confidentially in a rather liquid note, "Kul-kul-kul." A passer-by is acknowledged with a greeting that sounds like "k-war," while the presence of a man with a gun, or a hovering hawk, or any other suspicious object causes a great commotion, and the danger call "ca-ca-ca-caw" is sounded.

Rooks' eggs are bluish-green, blotched with grey, purple, and dull brown, and are very



FIG. 92

Rooks

variable. From four to six form a clutch. Sometimes the male assists in incubation, but more often he "minds the eggs" while the mother goes for a short flight

The Young Birds

When the young hatch, he busies himself in collecting worms and grubs, which he passes to the mother, who prepares them in her beak before feeding her babies. But at the end of five or six days, the nestlings do not need the prepared food, so both parents assist in collecting. It can be noted that the young rooks like best to receive food from the mother; they call out joyously when she returns, but they take food brought by their father in silence. As soon as they are fully fledged, they scramble awkwardly to the edge of the nest and sit crouching or swaying, finding it difficult to keep their balance; and during the next few days, we may see the parents enticing the little ones farther along the boughs and encouraging them to take short flights.

After the breeding season, about the end of June, the birds leave the rookery and fly to trees some distance away, where they meet friends from other rookeries, till there is a vast congregation. During the day they disperse on the business of food-finding; some go to pounce on worms and grubs turned up by the plough, others find mice, young birds, and eggs. At the end of the summer, they haunt the cornfields, and in autumn feast on acorns, walnuts, and berries. Towards evening they return to the roosting place, adding to the numbers streaming in from all sides, and then indulge in displays of flying, diving, wheeling, as recreation before bed-time.

Now and then the old rookery is visited just "to keep an eye on it," but it is not lived in till early spring.

Which are Crows ?

How can one tell a rook from a crow? It is almost impossible to distinguish them at a distance, both are black, with green and violet reflections, but the base of the rook's beak is white and scurfy, while that of the crow's is

covered with bristly feathers. The rook's voice is not so harsh as the crow's, and in summer, when the rooks are assembling in numbers, the crow is often solitary; certainly he has few friends.

The Thrush (Fig. 93)

Another early nester is the thrush, a well-known bird, with upper parts olive-brown, white throat, sides of neck and under-parts yellow ochre in colour spotted with dark brown. His mate is a little less bright. They pair in February and immediately begin to look out for an eligible site, which they usually discover in a holly bush, or thick shrub, or in the middle of a hedge. Both birds co-operate in the building, and collect for the outside grass, small twigs and moss, while the inside lining is a composition of rotten wood (often gathered from old pollarded willows) and cow dung. This is plastered on wet, and the hen shapes the lining by sitting down and pressing with her rounded breast, so that, when dry, a perfect basin, quite watertight, is formed. Thrushes are tidy builders, carrying off remnants of material and dropping them some distance from the nest.

The Thrush's Song

By the end of March, we can expect to find the hen sitting on a clutch of four or five eggs, greenish-blue, spotted with darkest brown, while the cock's song is heard at its best. This is difficult to describe—a song in the major key, full of joy and summer. There is nothing consecutive, a few notes, a phrase, a single exquisite note, so pleasing that the thrush sings it two or three times, but the notes and phrases are not repeated in any definite order. There are pauses as though the cock were considering what next to sing!

Early morn, and in the evening, are the best times to hear it, but when the young hatch out there is little time for song; hungry babes demand food and more food, and certainly require a meal an hour. It is difficult to find enough in early April, when there is still cold and inclement weather; but caterpillars, worms, grubs and insects must be discovered,

hence the parents are kept very hard at work satisfying their nestlings. Things are better when the second brood is hatched, for warmer

on which he smashes the shell and draws out the victim. In summer he visits gardens and takes heavy toll of soft fruits ; while autumn



FIG. 93

The Thrush

days and ever-increasing insect life make food-getting less of a problem

Their Menu

Thrushes like a varied menu, worms and snails are favourite food, and we may see a bird standing on the lawn, his head on one side, listening intently for movements of worms under the ground—then a sudden rush to a spot half a yard away, a plunge of the beak, and a fat worm is secured. Or we may see him hunting among stones and roots of plants for hidden snails, flying off with a prize to a favourite stone,

sees him on moors after bilberries, in hedges after blackberries and haws, while insects, such as gnats, ants, and crane-flies, fill up the bill of fare.

The Blackbird (Fig. 94)

His near relative, the blackbird, has similar tastes and habits. He also chooses a hedge or bush as a nesting site, and makes a perfect cup-shaped nest of the same kind of materials, only the mud lining is overlaid with grass. His mate lays four or five greeny-blue eggs, spotted with

pale brown. While there is little difference in appearance between the cock and hen thrush, there is a great difference in the colouring of the two blackbirds: the cock is known by his black plumage, set off in spring by a brilliant orange beak, while the hen is sooty brown, broken by various shades, and is often mistaken

bird after another, the listener remains entranced in the presence of very great singers.

The Nightingale

From the blackbird, our thoughts travel to the nightingale and blackcap. Which is our most perfect songster? Probably no one could decide. Each bird's song is so different, each seems best till we hear its compeer; few, however, would deny that in a list of our best bird musicians we must place nightingale, blackcap, blackbird, skylark, thrush, and willow wren in the first six, though within this, opinions as to pre-eminence must differ.

You must listen for the nightingale in some copse or wood, chiefly in the South of England, for he rarely travels into the northern and western parts. Surrey, with its park-like lands, is the county specially favoured by this migrant, which arrives about mid-April. It looks rather like a robin, only its upper parts are all uniform brown, with chestnut red on the tail; its under parts are greyish-white, edged with ash. (See Fig 95)



FIG. 94

.1 Blackbird

for a dark thrush. Their children have variegated brown plumage.

Few birds can rival the blackbird in song, none can surpass him in beauty of notes, though the nightingale is easily master in elegance of phrase. To hear the blackbird perfectly, listen to him in the evening as he stands out on some tallish tree against a glowing sky, while the earth grows dark. His notes, in the minor key, are exquisitely mellow, rich and soft. "He sings leisurely, as a great master should," says Richard Jeffries, but there is rarely a successful finish—an awkward stop—an unmusical note—ignominiously brings the song to a close. Yet, as the perfect tones are taken up by one black-

Her Nest

The nest is made in a thicket or stump of a tree, and must be looked for near the ground. It is constructed of dry grass and leaves, lined with fine grass and down from such seeds as thistle and willow. Four or five olive-green eggs are laid, and the young, which hatch in June, are fed on worms and green caterpillars. They are rather like young robins, for they have brown feathers tipped with buff and appear mottled. When they become self-supporting, they add ant larvae, beetles, moths, and flies to their menu.

The nightingale's song is more perfect in phrasing than that of any of our other birds, and is marvellously penetrating and brilliant when heard in the evening and on moonlit nights. There is a peculiar "jug-jug-jug" interspersed throughout the song which makes it easily recognizable. From mid-June the nightingale is silent, busy with the rearing of its family and its moulting, before the departure in August and early September

The Skylark

For overflowing gladness, no song can equal that of the skylark as the bird soars up and up, beyond the light summer clouds. It sometimes rejoices us by singing on mild winter days, when only the robin keeps it company. In February it is heard more often, while by the

of dried grass and moss, but the inner is of horsehair and finest grasses—a snug place for the four or five greyish eggs blurred with green-brown, so that they are well camouflaged.

At least two families are reared each year, and the little larks run about the field with their parents seeking those seeds and insects that form their summer food. In winter they



FIG 95

The Nightingale Sings to the Moon

end of March its music is at full flood. Probably no bird has so long and voluminous a song season as the lark (Fig. 96.)

Although the skylark is one of the most familiar birds to country children, it will be scarcely known to town-dwellers, for it is a bird not of trees and hedges, but of open fields and moorlands, where, when sitting on her eggs, the hen sees only grasses and delicate flowers around her, and overhead the blue sky. One comes across the nest, by accident, in April, simply made by lining a small hollow such as left by a horse's hoof print. The outer layer is

become wholly vegetarian, and live chiefly on grass and flower seeds.

His Song

A good observer, Mr J. Mann, has very accurately described the skylark's song: "No bird sings with more method; there is an overture, performed *vivace crescendo*, while the singer ascends, when at the full height the song becomes *moderato*, and distinctly divided into short passages, each repeated three or four times over, like a *fantasia*, in the same key and

time. If there be any wind, he rises perpendicularly by bounds, and afterwards poises himself with breast opposed to it. If calm, he ascends in spiral circles; in horizontal circles, during the principal part of his song; and zig-zagly downwards during the performance of the *finale*. Sometimes, after descending about half way, he ceases to sing, and drops with the velocity of an arrow to the ground."

The lark is little more than an inch longer than a sparrow, with plumage in three shades of

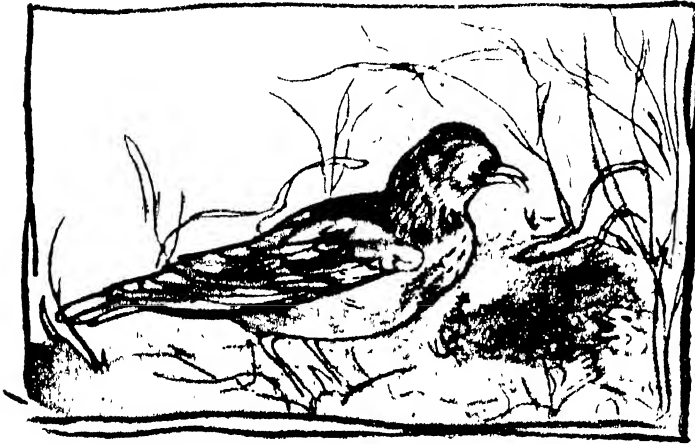


FIG. 96

The Skylark

brown on the upper parts, a whitish streak over the eye, a white throat and under-parts yellowish-white, tinged with brown, there are long dark brown spots on head, throat, and sides of neck.

With September, larks begin to congregate in enormous flocks, changing their feeding ground from time to time. Many migrate to the Continent, but many also come to us from Northern Europe.

The Sparrow

Town children are debarred from the study of many birds, but there is one with which they can become as familiar as their country cousins—the sparrow. Hygienists point out its bad habit of taking scraps of food to inaccessible places and leaving them partly eaten—traps for bacteria. They speak of war on sparrows in

the interests of health, but the Londoner loves the cheeky little birds as they steal the horses' corn and snatch the seeds from beneath the beaks of the stately pigeons. Noisy and quarrelsome they are, but I have seen men pause in the unloading of a wagon to watch a flock of sparrows settling on a tree for the night, chattering, scolding, feather-pulling, perching, lovable for their very impudence. "Cheeky little beggars," remarked one man; "Likes to see 'em, I does," said the other, resuming work—that is the place the English sparrow holds in our affections.

When a townsman sees a clean sparrow in the country, he hardly recognizes the sombrely handsome plumage; the back, wings, and tail are ruddy-brown, some feathers with black centres and some with white tips; the under-parts are dull white, and on the neck is grey. The cock sparrow may be distinguished from the hen because under his throat he has a bib of black. In towns, sparrows appear dirty brown, shading to dingy grey.

The Nest

It is a most suspicious bird, yet likes to live near man. Its nest is constructed in cracks and crannies of walls and roofs, in gutters, behind stone ornaments on houses, in ivy, under disused crows' nests, or in odd places such as an old saucepan or a tin can. He is not a skilled builder, and the nest resembles an untidy heap of feathers, bits of wool, grass, and straw, mixed with string and bits of material. The inside is just a mass of feathers. It is easy to discover sparrows' nests on account of the bits of straw which seldom fail to advertise their position.

It is often stated that the sparrow is an early nester, but this depends much on weather. It is more often the beginning of April than the end of March when sparrows' nests are to be found. The eggs, usually five in a clutch, are small and very variable. The ground tint may be white, grey, or brownish, on which are fine brown pencillings and blotches. The young

hatch in about a fortnight, naked, blind, and helpless, and are fed assiduously by both parents on a diet of caterpillars, till they get their first plumage of grey-brown.

devices to prevent it wrecking newly-sown beds. In Spring, gooseberry bushes and currants have their buds pecked out, while the beauty of crocus and polyanthus beds is frequently des-



FIG. 97
Swallow

His Food

The menu of the sparrow is very varied. We can tell from the shape of the short, stout, conical beak that it is normally a seed-eater, and many are the "scarecrows" and other

troyed by sparrows in playful mood, or when searching for hidden insects. With the ripening of grass seeds, many town sparrows take a country outing, and later, enormous numbers flock to the corn fields, where they take heavy toll.

The Swallow (Fig. 97)

From the stay-at-home sparrow, our thoughts turn by contrast to the swallow, whose comings and goings, like those of the cuckoo, are noted by even unobservant folk. In the South of England it may be expected early in April, and it makes its way to the North about the middle of the month, while in Northern Scotland it is not seen till the beginning of May.

On its arrival it makes for the water courses, where there are most flies, and then seeks its old nesting haunts near to human dwellings. It builds, when possible, on top of joists supporting the rafters of a barn or outhouse, and the saucer-shaped nest is fashioned of pellets of mud mixed with saliva, and lined with feathers and dry grass. In this the hen lays from four to six eggs, white spotted with rich brown and purple-grey; and during the period of incubation she is fed by her mate.

A Great Traveller

Wherever there are farms and dwellings we find swallows, and it is this preference that has endeared it to man. It travels to our country from far distances of many hundreds of miles, and shows a wonderful perfection of the flying mechanism. The slender tapering form, covered with feathers so closely overlapping that they offer no resistance to the air, the light weight, long powerful wings and tail, its keen sight, all make for speed. No bird has a more beautiful flight, and it is an artistic joy to see it dart after the quick-flying insects that form its only food.

An examination of a swallow's head shows a short, soft beak, incapable of eating seed food; but the gape is wide, so that the mouth appears to open from eye to eye. To make the escape of insects more difficult, there are a few bristly hairs standing out round the gape, and the saliva is sticky.

When swallows are pursuing insects to feed their nestlings, they collect them in a pouch under the tongue, and later, when the young have learned to fly but have not learned how to catch flies, we may watch the parents passing food to them in mid-air.

The Swallow's Song

The male has a pleasing little song of about a dozen notes, which ends in a trill so low as to be hardly audible, and when on the wing we can hear constantly its familiar "twit-twit."

On fine summer evenings, swallows pursue the gnats to a great height, but when they fly near the ground the countryman holds it a sign of rain, for it means that the air, saturated with water vapour, damps the gauzy wings of the insects and makes it impossible for them to rise. We rarely see swallows flying among trees and hedges, for moulting as they do only once a year instead of twice, as is usually the case with long-distance migrants, they cannot afford to risk damaging their feathers amid thick foliage.

Their Departure

After the second brood has been brought off, swallows congregate on telegraph wires and roofs of houses. There is much twittering, and it seems as though they are making plans for the long journey that lies before them. During September, they set out on their adventurous flight, mostly to North Africa, where they find the insects that in our country are not available in winter to satisfy their enormous appetites.

The Starling (Fig. 98)

In the course of country walks, we may often see the starling, a fairly large bird, perched on the back of sheep and cattle, diligently searching for ticks. On grass lawns and fields starlings abound, walking slowly about, methodically examining roots of grass for worms and grubs. Go to the cherry orchards of Kent, or to any garden where fruit ripens, for sad tales of those "dratted" starlings. In towns, standing out against the sky from the top of a chimney, the starling is a familiar sight as he flaps his wings and makes queer chuckling noises, interspersed with long-drawn shrieks, whistles, and sounds resembling those made by the vigorous snapping of fingers. He is trying to entice a starling passer-by to take pity on his loneliness, for he loves company.

In town or country he seems ubiquitous, and

however much the gardener and fruit grower may disparage this bird, the wise farmer will say that we cannot have too many for no bird does more good in clearing the ground of pests, such as the harmful cockchafer grub and leather jacket (*see* pages 835 and 836), than the starling. Animals, too, are glad of his services in ridding them of irritating parasites

His Coat

Unlike the swallow, his is not a delicate, graceful shape, but then his method of food-getting is different. He is pre-eminently a digger, and needs a strong, stocky body to drive his powerful beak into the soil. His colouring is beautiful—black, shot with violet and green, while the upper feathers are tipped with buff, giving the effect of long tawny spots. His wife is spotted underneath as well, and his children have coats of uniform ash-brown without any spots.

Early in January he is to be seen looking out his future nesting site, which is always some hole in a wall, tree, barn, or under a roof, and here, in April, he puts together a rough nest of grass, moss, and oddments, being—like the sparrow—a slovenly builder. His mate lays exquisite blue eggs, five in number, and is an exemplary mother, though she rarely brings up more than one family in the year.

A Sociable Bird

No bird is more sociable than the starling. It loves to feed in company with rooks, pigeons, and jackdaws, and as soon as the young are old enough, they go with their parents to the feeding grounds, where they join with other families until, in some parts of the country, enormous numbers congregate. One of the finest sights of bird life in England is the vast "cloud of starlings," gathered in from all directions, rising, flying, wheeling, changing its shape—

now a long streak, now a compact mass, all units turning together in a miraculous way, till suddenly they descend to earth roosting in



FIG. 98
Starling

a bed of reeds, osiers, or in trees. There is much chattering, scolding, singing, screaming—an indescribable, never-to-be-forgotten noise—then, silence.

The Seagull

Children living near the sea and tidal rivers will be familiar with many gulls, of which perhaps the black-headed is best known.

Londoners can see them in winter, as they come up the Thames for the scraps and bits of fish thrown to them from the bridges. (Fig. 99.)

Seagulls stand for us as emblems of freedom and of untamed Nature, and there is something of wonder in our admiration as we watch

or on tussocks of grass. Year after year it returns with numbers of its friends to the same place, and the Norfolk Broads are specially famed as being breeding haunts of gulls. One of the best known gulleries is Scoulton Mere, where at least 10,000 birds are bred every year.

The eggs, of various shades of brown and pale

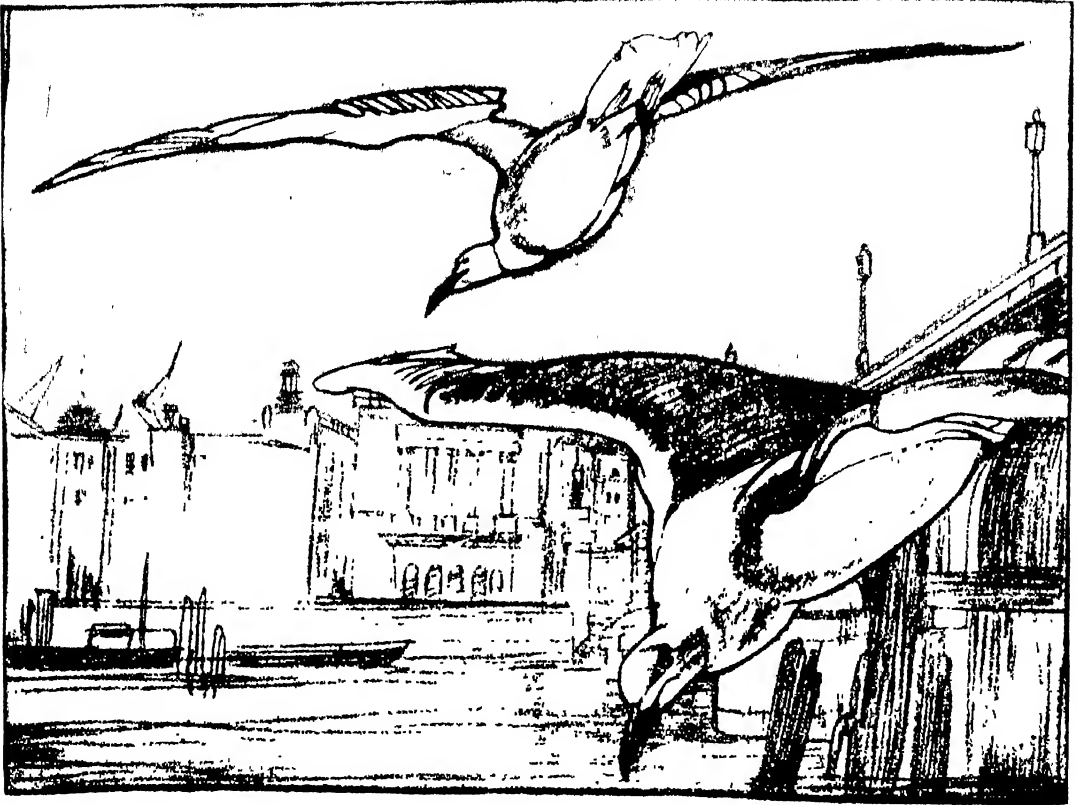


FIG. 99
Seagulls in Winter

the beautiful circling flight and hovering of these wild birds that come expectantly, driven by hunger, to our great Metropolis.

These gulls approach so near that we can see the plumage well -white, except for red bill and feet and the grey mantle. But when the mating season begins, the head has a black hood and from this the bird derives its name.

The Gull's Nest

In March it goes inland to marshes not far from the coast and makes its nest on the ground,

green, spotted with black and brown, are very pointed at one end. This is the common shape for sea birds' eggs, and is more pronounced in those varieties that are laid on ledges of cliffs, where, if they roll, they can only turn in a circle.

As soon as the young are ready, they leave the gullery and take to the coast, where they fly incessantly up and down, looking for fish and crustaceans, calling to one another in short, rapid notes, or with a sound rather like a harsh laugh.

Different Kinds of Nests

It is almost inevitable that the subject of nests should lead to some attempt to distinguish types. Nests depend mainly on two factors, (a) the locality where food is found, (b) the material available. Thus we may group them:—

1. *Ground Nests* of skylark, plover, partridge, pheasant, black headed gull, fowl (*see* p 876). Most of these are made by lining slight depressions with grass, and the eggs usually are of earth and dry grass colours for protection.

2. *Tree Nests*, as favoured by crow, magpie, rook, dove, pigeon (*see* p 871). These are mostly of sticks, and vary from the large solid erection of the rook to the flimsy platform of the wood pigeon, through which we can see the two white polished eggs.

3. *Hedge and Bush Nests* of thrush, black-bird, robin, hedge accentor, chaff-chaff, chaffinch, etc. These are all cup-shaped, with characteristic linings, e.g. hair in robin's, mud in blackbird's. They are usually beautifully constructed of materials that harmonize with surroundings, thus, a thrush building in a holly bush uses green moss for the outside, but his nest in a tree stump has more dry grass and tiny sticks.

4. *Hole Nests* of starling, sand martin, woodpecker, kingfisher, are more or less loose heaps of materials. The nests are in safe places, hence birds do not waste time over extra protective and careful workmanship. As an example of strange material, we may cite the kingfisher's nest made of fish bones.

5. *Mud Nests* of swallow and house martin.

Classification of Birds

Though young children are not ready for classification, some preparatory work may be done, and the teacher should have in mind a simple grouping of birds, in order that she may more intelligently direct observation. The relationship of beak, length of neck and legs, to food-getting is important, also the character of the feet.

Some of the chief groups are—

Scratchers. Fowl, partridge, pheasant, turkey, peacock. These have very strong and rather blunt claws, well adapted for scratching in the

ground to uncover ant cocoons, grubs, worms, etc.

Waders: Heron, oyster-catcher, sandpiper, plover, curlew, snipe, etc., find food on river banks, the seashore, and marshes, and are characterized by stilt-like legs and correspondingly long neck. The beak of most is long and adapted for spearing fish, or feeling in mud for living creatures.

Swimmers. Duck, goose, swan, widgeon, teal, etc., have webbed feet, placed rather far back, so that the gait on land is awkward. The neck is long to enable these birds to secure any food from mud.

Perchers: All song-birds belong to this group. They have long slender toes, capable of clutching round boughs, and all roost in trees.

Climbers. Woodpecker, parrot (though not a British bird, it is a familiar inmate of many homes). These have two toes in front, and two behind, and while the parrot uses its beak to assist in climbing, the woodpecker presses its stiff tail quills against the bark of a tree.

The Autumn Migration

With the approach of autumn, one of the most interesting chapters of bird life, begun in spring, may be continued. We see birds collect to form groups, make tentative flights, and then one day, when weather conditions are sufficiently favourable, start off on their journeys to warm countries, which to many of them are unknown. Cuckoo, swallow, swift, turtle dove, nightingale, chaff-chaff, willow wren, fly-catcher, and many others come to us in the spring to nest and bring up their young, but as soon as the supply of particular insect food seems in danger of becoming exhausted, or signs of cold weather appear, then these birds leave us for such parts as Egypt, Algeria, South Africa, where they can spend the winter feeding and resting in kinder climates.

It may be that the oncoming of winter awakens some racial remembrance of the dread glacial periods, when each century the birds had to go farther south and find homes in new lands, or perish, but, whatever the cause, this instinct to migrate is so insistent that it sometimes defeats the remarkably strong parental

instinct, and swallows have been known to leave a late brood to its fate, rather than fail in adjustment to the new urge.

Path-finders

Sometimes young birds precede their parents, as in the case of swallows; and sometimes the parents go first, as in the case of cuckoos. How do these youngsters find the way over immense distances? Does some mother whose nestlings were destroyed, or some unmated bird, take pity on young swallows, and show them the way across Europe by river, valley, along high mountain ranges, or by following coast lines?

Winter Visitors

We are apt to connect autumn with departure, forgetting that it is also a time of arrival for the winter visitors which, at this season, come to our shores from the north and the north-east, where in Arctic or far northern lands they have brought up their families.

Among these are the fieldfare and redwing, near relatives of the thrush. They make for meadows and cultivated lands; but while the fieldfare subsists on seeds and berries, the redwing comes off badly in severe weather, for it is chiefly an insect eater and cannot thrive on berries. A flock of fieldfares is a pretty winter sight, for, when feeding on the ground, these birds move in one direction and when they roost in a tree they all face one way. Other winter visitors are the snipe; members of the great duck family, such as widgeon, teal, pintail, pochard; wild geese, etc.

Some of our winter visitors are additions to the species of birds that remain with us all the year; thus in winter we have many more thrushes, larks, starlings, wrens, plovers, than in summer.

Constant Birds

Not all birds migrate. We have some, e.g. robin, sparrow, thrush, tit, goldcrest, starling, grouse, that are resident; but among these are often small movements, as when the grouse leaves the high moorlands for the valleys, and some starlings cross from east to west of our islands, while chaffinches from the North augment the winter population of these birds in the New Forest and other wooded places in the south.

Compared with the spring migration, the autumn one is leisurely. Food is still abundant, bad weather has not set in, the business of family rearing that brought the birds to our country has been accomplished, most have got over the moulting, and there is no immediate hurry. Hence it is that we see more of the migratory movements of birds than in spring, when each, impelled by the mating urge, is so eager to settle down. It almost seems as though our autumn migrants are reluctant to leave the place where happy times have been experienced. But one by one they go, some slip away unnoticed, others travel in large companies, but it is always with special regret that we say farewell to our summer visitors, those

*Wild birds who change their season in a night,
And wait their way from cloud to cloud
Down the long wind.*

SUGGESTED WORK FOR CHILDREN IN CONNECTION WITH BIRD LIFE

1. COLLECT food materials for birds in winter to enrich the bird table.

2. At all times of the year fill up the water dish, and if possible provide a shallow tin or an old sink for a bird bath. This should be an interesting centre for observation.

3. Make a collective scrap book on bird life. Let children try to draw and colour any characteristic attitudes of the birds they are watching, and encourage them to make pictures in out-of-school hours. It is surprising how often such drawings suggest movement. Collect pictures of birds for children to cut out and paste in book.

Enter good compositions on any phase of

bird life, and have a chart recording the arrival and departure of migrants. In such a book, some attempt should be made towards orderly arrangement; thus, one page might show birds of the farm and house; another, swimming birds; a third, sea birds; a fourth, singing birds, etc. Other groupings may suggest themselves, e.g. seed and berry-eating birds; insect eaters, foreign birds, etc.

Short poems or single verses on birds could be written neatly in print-script and pasted in.

4. Hectograph for each child a plan of the neighbourhood, and let children mark in where any nests are discovered, and print names of birds.





FAMILIAR FRIENDS OF THE SEASHORE

NO setting for the study of living things gives us such a feeling of adventure as the seashore, with its countless unfamiliar forms. There is a sense of mystery—anything may happen, any wave, especially after a storm, may bring to our feet some treasure from the vast spaces beyond the tumbling waters

Come, then, to a certain coast where we shall be sure of finding most of the well-loved sea treasures. This stretch of shore is backed by grassy waste lands, where pink centaury, dwarf scabious, milk wort, yellow rock roses, lady's slippers, and sweet scented thyme riot among the short grasses. On one side are sand dunes, with tufts of coarse bluish grasses and sea holly; on the other rises a rocky cliff, whose top has many hollows, a glorious place from which to make a preliminary survey of the hunting ground before us.

A Nature lover would not show himself without making sure there were no special birds or other creatures, who, still unaware of the presence of an intruder, might show something of the way they set about food-finding, nesting, or eluding enemies.

The Beach

Beyond the dunes is a raised beach, partly of small rounded pebbles—made smooth by the incessant rolling, as the tides came in and

receded—and partly of sand. This beach is now hardly ever reached by the waves except in the stormiest weather, and in spring it is a splendid place to hunt for eggs of the dotterel and oyster catcher. Nearer the sea is a line of jetsam thrown up by the last tide, marking the place to which it came; and beneath the cliff great boulders of rock have fallen, covered at high tide, but forming wonderful rock pools that can be explored at low water.

Sea Weeds

The line of jetsam will provide us with many treasures of seaweed, and we shall certainly find examples of the three colours—green, red, and olive—into which seaweeds are classed. Here is a thin crumpled strip of very bright green. This is the sea lettuce (*ulva lactuca*) which grows on rocks between tide-marks. It is good to eat, and children may often see it in fishmongers' shops when the barrels of oysters are unpacked. Fishermen call it "oyster green," and use it to cover the molluscs and keep them cool when sending them to market. (Fig. 101.)

In clambering over rocks to look for this weed, children should be warned of the slipperiness of the green-covered rocks, on which another seaweed is growing—the thread seaweed or *conferva*. When seen under water, in the pools, its long filaments spread out and look like a

green cloud; but when the tide goes down they press against the rocks as a dark green slimy covering.

Red Seaweeds (Fig. 100)

Of the red seaweeds we shall find many beautiful pieces left on the shore by the receding

has numbers of "leaflets" on its margins. Like the sea lettuce, it is used for food. On the English shores also it is common, and may often be picked up with its small disc-like root attached. Seaweeds differ from land plants in having no roots that absorb water and salts from the ground. The roots are really only means of attachment, and are usually quite small.



FIG 100

Sea Weeds

- (1) Dulse, (2) Irish Moss, (3) Ceramium,
(4) Nitophyllum

tide. These have been torn by the waves from rocks farther out, and, as a rule, can only be seen growing at very low tide. There is the *ceramium*, with pink and crimson delicate fronds branching like fans; the Irish moss or *carrageen*, which contains much gelatine and still is used to form a food for invalids; and one most beautiful rose-red seaweed (*nitophyllum*), showing rather broader parts to its divided fronds, near whose base we may trace purplish veins.

Scottish and Irish children will be familiar with the Dulse, a red fleshy seaweed, that often



FIG 101

Green and Olive Seaweeds

- (5) Knotted Wrack, (6) Sea Lettuce, (7) Bladder Wrack,
(8) Strapweed (*Laminaria*)

A Natural Weather Glass

On many a cottage wall hangs a natural "weather glass," an infallible oracle on rain. It looks like a strip of leather, and grew once in deeper water than the other seaweeds we have noted. These "ribbons," with long thick stem and roots, are often as tall growing as the delighted child discoverer, and are among the most prized trophies to take home "to tell the weather" in many an inland town.

Another of the olive seaweeds is the bladder wrack, found abundantly between high and

low water levels. It usually has air vesicles in pairs, one on each side of the mid rib—"poppers" children call them. At certain times of the year farmers collect this seaweed in carts, and plough it into the land, where it decomposes and enriches the soil. On many a Welsh and Irish farm, you may see potatoes being planted in trenches on beds of seaweed, while cattle like to eat it as a change of diet.

Nearer to deep water grows the knotted wrack, with its long narrow frond and large

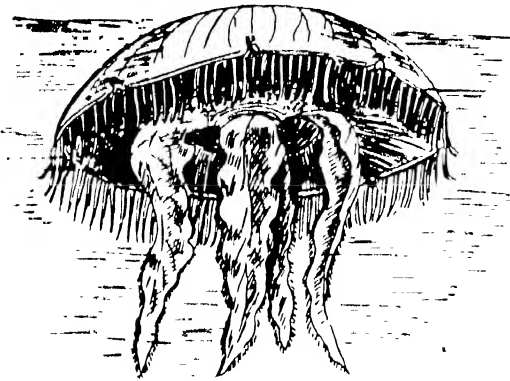


FIG. 102

Jelly Fish in Open Sea, showing Four Lips

oval air vessels so reminiscent of beads. These are the chief weeds likely to be found on any shore, though there are many other varieties too numerous and perhaps too local to consider now, when other objects compete for our attention.

A Jelly Fish

Here, just left by the tide, is a pale, milky jelly fish (Fig. 102). If put back in the sea, no harm will come to it, but if left exposed to the hot sun, its watery body will remain only as a film on the shore.

It seems strange that a creature, mostly water, can have an interesting and adventurous life of its own. From spring to autumn jelly fish drift in numbers about the surface of the sea, not knowing where they are going, helpless to move if they are cast up on the beach; yet they are not quite at the mercy of tides. Watch them

in the water; the umbrella-like disc makes contracting and expanding movements, controlled by powerful muscles; in this way some progress is made. One of them touches a tiny fish, and the fish becomes helpless—killed or paralysed. How was this done?

However carefully we look at the jelly fish, it is impossible to discover any means whereby an animal might be killed for food—the jelly fish only touched the fish and the deed was done; but this is one of its secrets. Turn the bell upside down. Hanging from it are four flaps, these are lips and all over their surface, as well as on the fringe of tentacles round the margin, are tiny cells, in each of which a little thread lies bathed in poisonous fluid. If the openings to these cells are touched, they rupture, and the threads or lassos shoot out, piercing the victim, and either paralysing or killing him. One lasso could do little, but many are ruptured at a time.

His Mouth

Here is food, but where is the mouth in this strange creature? It lies just under the body in the midst of the four lips, and from the top of the disc may be seen radiating tubes to convey nourishment over the body. The chief tubes run to the notches, where the margin is divided into eight parts; and near these notches are to be seen the coloured spots, or "olfactory pits," whose function it is to let the jelly fish know if it is near anything good for food.

Sea Anemones

This method of food getting is so successful that it is used by many other sea creatures, particularly by the beautiful flower-like anemones (Fig. 103), which can be found in rock pools at low tide. Look long and steadily, as they are not easy to find at first; tiny ledges of rocks, in corners between two boulders, are favourite places, and some of the best are to be found under fronds of seaweed tucked away in the narrowest crevices.

Most common is the beadlet, of which there are several varieties, and their usual colours are

liver brown, crimson, and green. These little creatures have rather wide bases, hollow bodies filled with water, tentacles like petals, about two hundred in number, in the midst of which is the mouth. When covered with water, the tentacles, crowded with poison-thread cells, are pushed out. If a shrimp, small fish, or crustacean comes by it is caught, drawn into the ever-ready mouth, where it is gradually dissolved, the indigestible parts being ejected from the mouth.

these little creatures can be seen slowly pushing out their bases and gliding a short distance over the stones.

Other Varieties

It needs sharp eyes to discover the beautiful dahlia wartlet, for, though it is a large anemone (often 4 in. or 5 in. across the expanded tentacles), and very common, it likes to squeeze into narrow



FIG. 103

Sea Anemones

(1) *Opelet*, (2) *Gem Pimplet*, (3) *Beadlet*

When the tide goes out, or the sensitive tentacles are touched, a muscle round the disc contracts, the tentacles are drawn in, so that just a little hump of a body remains. All the beadlet anemones have tiny projections like beads round the edge of the disc, from which they get their name.

Can the anemone move about? It can, but it rarely chooses to do so; the sea brings it plenty of food, and this is all it wants. If anemones are kept in a sea-water aquarium, where food is neither so plentiful nor so varied,



FIG. 104

Sea Anemones

(4) *Parasite Anemone*, (5) *Dahlia Wartlet*, (6) *Daisy Anemone*

places, and when the tide goes down often covers its body with small stones, which adhere to the many little suckers over its body. Its colour is dull crimson, with lighter tentacles and a pinkish disc (Fig 104)

Children living on the coasts of S.W. England will be likely to find the red speckled pimplet, with yellow body flecked with red, and pale yellow tentacles; the opelet, with greenish pink tipped tentacles, that look like wax; and the rose anemone, with brown body and brilliant rosy tentacles; while, tucked into holes, the

pretty daisy anemone settles itself comfortably for life.

The Star Fish

We cannot stroll far on the shore without coming across the quaint star fish with its rough

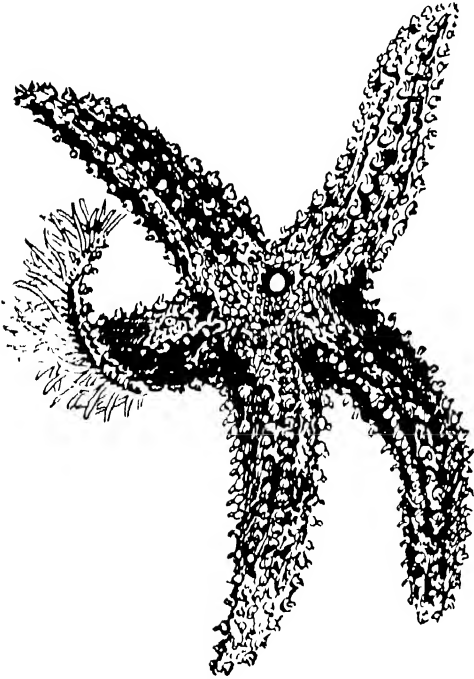


FIG. 105

Star Fish

One ray turned up to show tube feet

body fashioned in five rays. It looks such a harmless, rather helpless, creature as we find it on the shore, yet it has cunning ways and has learnt how, by the most ingenious method, to open the molluscs that form its favourite food.

Watch it moving along. It just seems to creep—but how? Turn up one of the rays and right down the middle will appear rows of tiny tubes, most of which end in a sucker. The star fish can fill these tubes with sea water and empty them by contracting their walls, so that when it wants to move along some of the tubes are filled, the suckers pressed tightly down, and the body drawn after; then they are emptied and refilled (Fig. 105).

On top of the body can be seen the place where the star fish takes in water to do this. Between two of the rays is a perforated circular plate through which water filters into a canal system, running round the mouth and down each of the rays, giving each tube foot its own water supply. If the star fish comes to a hollow in the sand, or to a stone, he hugs the ground as he goes gliding down the hollow or bending his body over the stone.

His Food

He has an enormous appetite, and though he does not disdain a dead fish or crab, he prefers mussels, oysters, and limpets. Creeping to a closed mollusc he glides his body over the shell until his large mouth is over the part where the valves must open; then pushing out all his sucker feet, he takes a firm grip, humps up his body, and pulls long and hard. In the end persistency and tension win the day, the mussel opens, and its soft body disappears into the stomach bag, which is so elastic that it can be protruded through the mouth of the waiting star fish.

Sometimes, however, the mussel manages to close his valves hard on a ray of the star fish, who can only get away by leaving this part of himself behind. This does not trouble him, as, with many sea creatures, such amputations are of frequent occurrence.

Probably in turning over the star fish to examine its mouth and tube feet, a red spot may have been noted at the end of each ray; this is conjectured to be a very simple sort of eye.

Though the star fish moves sluggishly, he need not trouble to get much out of the way of other creatures, for he has a well armoured body, with pointed spines, in between which are minute snapping claws, whose business it is to remove any seaweeds or small creatures that might settle down if not picked off.

The Sea Urchin

Very closely related to the star fish is the sea urchin, whose empty cases may often be picked up on the shore. They are perforated

with rows of holes, through which the tube feet may be thrust. He may be seen wandering over seaweed beds, where he rasps off pieces with his five huge teeth that protrude from the circular opening.

His structure can be better understood if a

tides, are to be found the shell treasures prized so greatly by children—shells in one part, shells with two valves, top shells, turret shells, horns, cowries, scallops, mussels; black, yellow, purple, white, pink tinted, and some that look like mother-of-pearl. (Figs. 106 and 107) Teachers

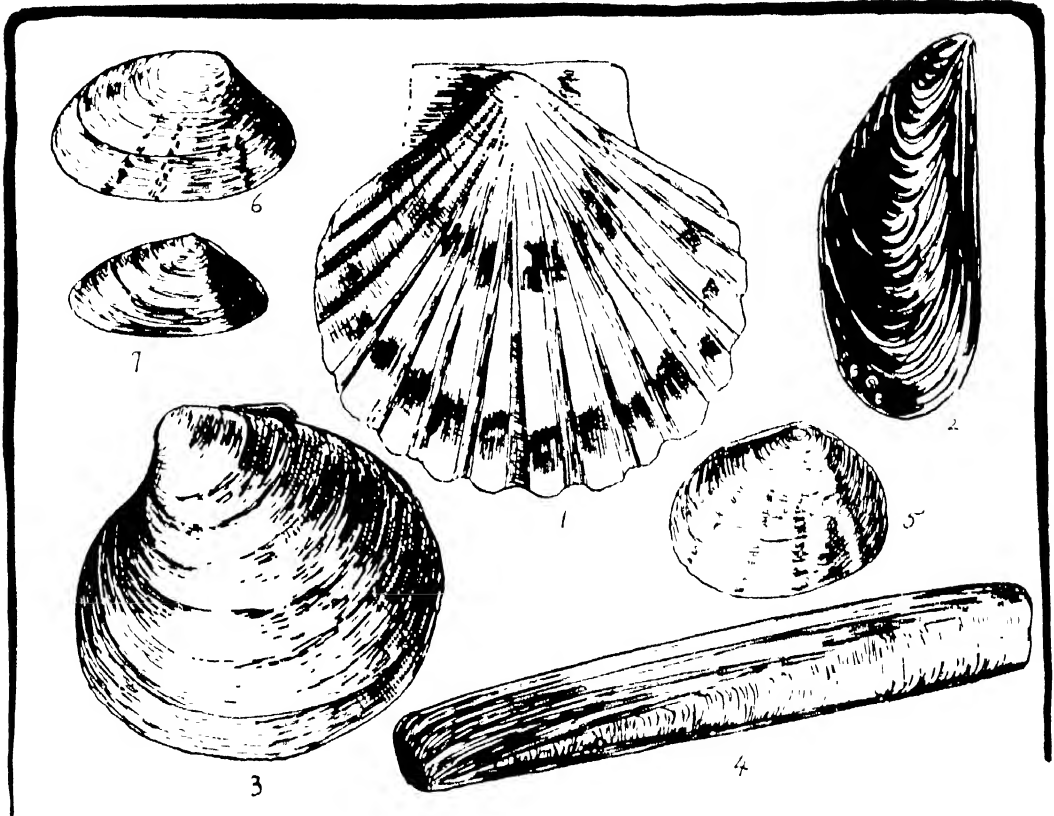


FIG. 106

Sea Shells. Bivalves

(1) Scallop, (2) Mussel, (3) Cockle, (4) Razor, (5) Sunset, (6) Venus, (7) Wedge

dead star fish is picked up, its rays bent backwards and joined together to form a box body. There are five rows of feet, and this explains the five rows of perforations on the sea urchin's case and the water plate on the upper side. The little circular depressions on the empty case are the sockets of the movable spines that have earned for this creature the name of sea hedgehog.

Sea Shells

On that part of the shore covered between

should not fail to make large collections, so that those children who have not been able to go for a seaside holiday may each have a bag of shells, and enjoy, with their more fortunate school-mates, the observations, reminiscences, and the little talks about the creatures who once lived in these dainty homes.

At the seaside the living inhabitants may be found, and the children may wonder at the large foot that enables each to pursue its way over rock and weed, and at the mysterious body covering, or mantle, that can take in particles

of lime from sea water, colour them, and arrange them into these marvellous shells. Whatever its shape, every one will show a series of concentric lines, and the elder children may like to know these are lines of growth, and that each shows when the shell was enlarged to meet the needs of the developing creature.

Mussels

On this rock, covered at high tide, is a bed of slatey-blue mussels, each anchored so firmly that it is difficult to detach one. The reason is that the mussel has a long foot which secretes a milky fluid that hardens on exposure to air.

When a mussel settles, it presses the tip of its foot against the rock and draws it back, leaving a fine silky white thread. This is repeated many times, until a strong anchor (*byssus*) is made, after which the mussel settles down for life. Opening his valves when the water covers him, he waits for what food chance may bring, and when the tide recedes he shuts the doors of his home, keeping within just enough water to last until the tide returns.

There is an interesting story which illustrates the strength of the mussel's byssus. A certain bridge, beneath which ran a strong current, was continually in need of repair, but as often as it was mended it was damaged. At last the town authorities ordered boat loads of mussels to be put down near the foundations. To these the molluscs fastened themselves, and made so strong a bulwark against the ravages of the tide that the bridge remained perfectly safe.

How the Mussel Lives

Examine a mussel shell carefully, and it will help in the understanding of any bivalve. The two valves are joined by a hinge of some elastic substance, and this is what makes the shell gape when the creature is dead. Some bivalves have interlocking teeth as a hinge, or teeth with a small ligament. The valves are closed by means of a peculiarly powerful muscle attached to each from near the centre of the animal's body. When these are contracted the two parts are brought together.

On each valve, near the hinge, is the umbo or

original shell, which formed the nucleus of the present shell; lines of growth are concentric to this. Some observant children may note a special marking inside each valve (the pallial line) that shows where the mantle was joined to the shell; beyond this its edges were free and able to work.

Razor Fish and Scallop Shells

On the sandy beach, specimens of the shells of razor fish (Fig. 106) may be picked up. They belong to molluscs difficult to find, for with long powerful feet they burrow deeply about low water mark, and lie snug at the very bottom till the tide turns. The burrows can often be detected by noting small jets of water suddenly thrown up, but, in order to get the living creature, digging must be quick and sudden.

Scallop shells (Fig. 106) may be known by their nearly round shapes, flanked with ears on each side of the umbones, and by their beautiful radiating ribs. This creature has a double margined mantle, delicately fringed and set with jewels like eyes around the rim. It can move about by filling its mantle with water and then, closing all but a tiny opening, suddenly squirting it out so that it propels itself along in the opposite direction. It is a most amusing sight, in a sea-water aquarium, to watch a group of young scallops suddenly dart about as though performing a dance.

The Cockle

While the scallop is active, another well-known bivalve, the cockle (Fig. 106), prefers to burrow in mud or sand. It draws down its shell until only the tip is left uncovered, but as it must get fresh sea water in order to breathe, its mantle on one side is drawn out into two tubes, called siphons, which lie above the sand in clear water. One tube draws in fresh water, the other sends out impure, after it has passed over the gills.

Some of the prettiest bivalves are the sunset shells, so called because their radiating lines of pink or orange may be said to resemble the beams of the sun setting in a cloudy sky. The wedges are known by their nearly triangular shape, yellowish in colour banded with brown;

and the Venus is resplendent in shades of delicate pink.

Univalve Shells (Fig. 107)

Turning now to the univalves, we come to molluscs more or less like our land snail, though many have still larger feet by which to creep over rocks and weed, and have developed on

not matter, as the greater part of it is coiled in the throat, and a fresh part can be pushed forward as needed. The pretty little yellow "snail" shells that are so popular are made by a small variety of periwinkle.

Limpets

Limpets must be looked for on the rocks.

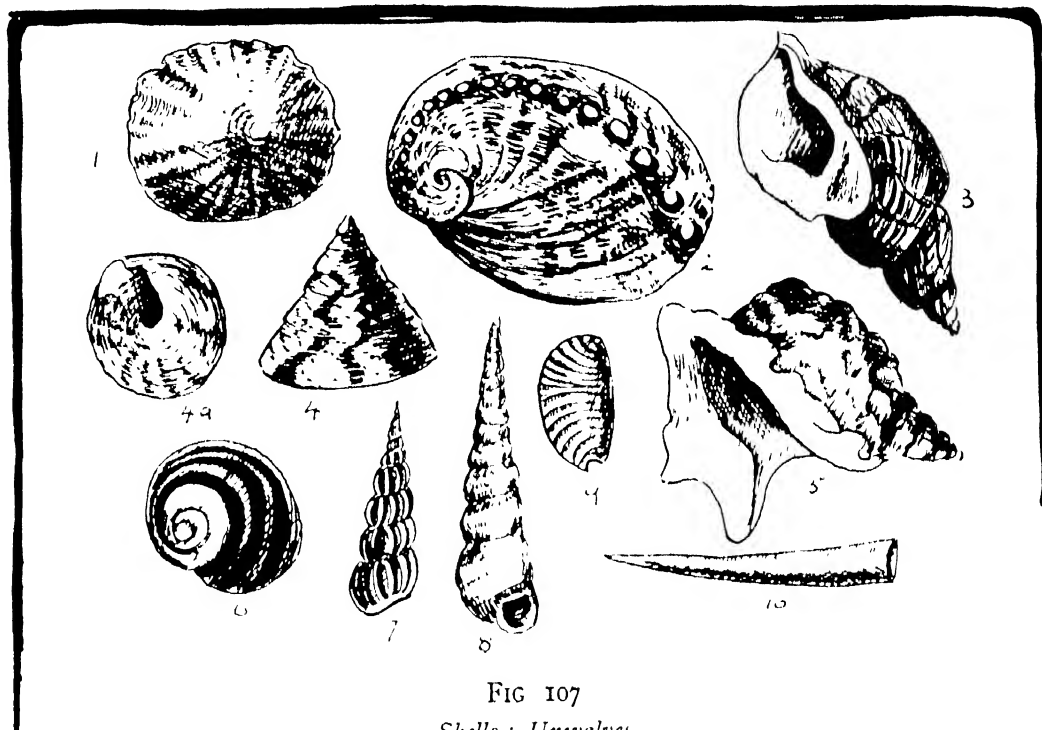


FIG 107

Shells : Univalves

- (1) *Limpet*, (2) *Ear*, (3) *Whelk*, (4) *Top*, (5) *Spout, or Pelican's Foot*, (6) *Periwinkle*, (7) and (8) *Turret*, (9) *Cowrie*, (10) *Horn*

the upper surface of the hind part a horny plate (*operculum*), which, fitting the opening of the shell, forms a lid.

Perhaps most familiar to children will be the periwinkle, whose empty shells are often picked up, but whose living bodies must be sought on beds of seaweed, where they creep about, grazing as they go, rasping off minute pieces with a most curious tongue that may be compared with a file. On the tongue are many rows of minute teeth, and powerful muscles push this backwards and forwards so continually that in time it is worn away. But this does

They may be known by their single shells, resembling miniature tents. Try to pick one up—so tightly does it cling, that when we want to express extreme tenacity in any person, we say "he holds on as tight as a limpet." Yet these are really animals that can move; when the tide covers the rocks the limpet cautiously raises its shell, and out comes a head with two delicate feelers and two small eyes near their base. Very slowly the foot begins to move, first by the muscles of one side, then by those of the other, and the limpet makes for the nearest seaweed to feed. Just before the tide turns, he

comes back to the groove he has worn in the rock, and fits himself exactly in it. So perfectly does it fit, that you may find shells with one part of the edge deeper where there was a little depression in the rock. Because of this, the limpet has to settle himself with some nicety.

Whelks and other Shells

These, and their friends with smooth edges to their shells, are mostly plant feeders, but

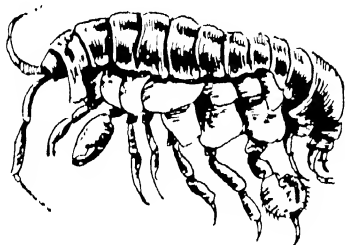


FIG. 108

Sand-hopper (enlarged)

some univalves have to work much harder for their living. There is the common whelk, which lives on shell "fish." Every time it wants a meal it has to drill a hole through the shell of some mollusc and extract the soft body. To do this it has the most marvellous boring instrument. In the mouth is a strap tongue of gristle, beset with pointed teeth, which, when pushed backwards and forwards, can bore a hole through the toughest shell. It is a far more powerful mechanism than that of the periwinkle. Bunches of whelk's eggs in horny cases are often washed up by the tide, and may be found plentifully along the line of jetsam; others may be looked for still attached to rocks or weed between tide-marks.

Shells with a notch in their margin usually belong to creatures that feed on other creatures; it marks the place where the mantle, which in them covers the gills, was drawn out into a breathing tube and protruded beyond the shell. These carnivorous molluscs are very plentiful, for it would be difficult anywhere to pick up a handful of shells without discovering one at least drilled with a neat round hole.

Other common univalves are—topshells, with

zig-zag greyish or reddish markings across the whorls, turret shells, drawn out into long spires; spout shells, conspicuous by reason of their enormously expanded lips; cowries, with small beautifully enamelled exteriors; and minute horns of molluscs that live on sandy and muddy bottoms. The greatest treasure, rare except in the Channel Isles, is the beautiful ear shell or haliotis. It may sometimes be picked up on our southern coasts, and may be known by its pearly iridescent lining and spiral line of graduated perforations.

Sand-hoppers

Walking along the shore at high water mark, we find it impossible to pick up any object without disturbing myriads of sand-hoppers (Fig. 108), whose mailed bodies, ringed to the head, can be bent nearly into a circle, and when suddenly straightened enable these creatures to make the most amazing springs. They crowd the beach above high water mark, and are among the most valuable denizens, for they devour decaying seaweed, strip the flesh from dead animals, and keep the shore in a state of cleanliness. They are preyed upon by birds and many sea creatures, but they faithfully obey the law of life, "be fruitful and multiply and replenish the earth," and they are never missing from the shore.

The Shrimp

A near relative of the sand-hopper is the shrimp, found so plentifully in shallow water along sandy shores. It gently creeps along on its ten feet, but when it wants to swim it uses the little swimmerets that are to be seen under the abdomen; and when alarmed, or pursued, it tucks its tail flapper sharply under its body, thus displacing water and driving itself violently backwards. Children examining shrimps will see that the second pair of legs is the largest, and ends in a pair of pincers for seizing their prey.

In order to see these parts better, with the stalked eyes and antennae, a lobster should be examined. It is very similar; only the first pair of walking legs ends in pincers, which on one leg are small for cutting purposes and on the

other are usually much larger, and are used for crushing food or cracking shells.

Crabs

On the shore, at low tide and in rock pools, small crabs with their strange sideways movements will be found. Their flat bodies can be wedged into crevices of rock, or can lie almost hidden at the base. They, too, are good scavengers, having a hearty appetite and despising

The Hermit Crab

There is one crab, frequently found in pools—the hermit—which always has a soft abdomen, and is consequently much sought after by other sea creatures. To avoid them, it finds a whelk shell and fits its abdomen inside. When it grows, it looks out for a larger shell and creeps in backwards.

The whole of its body can get inside, and for further protection one claw grows larger than

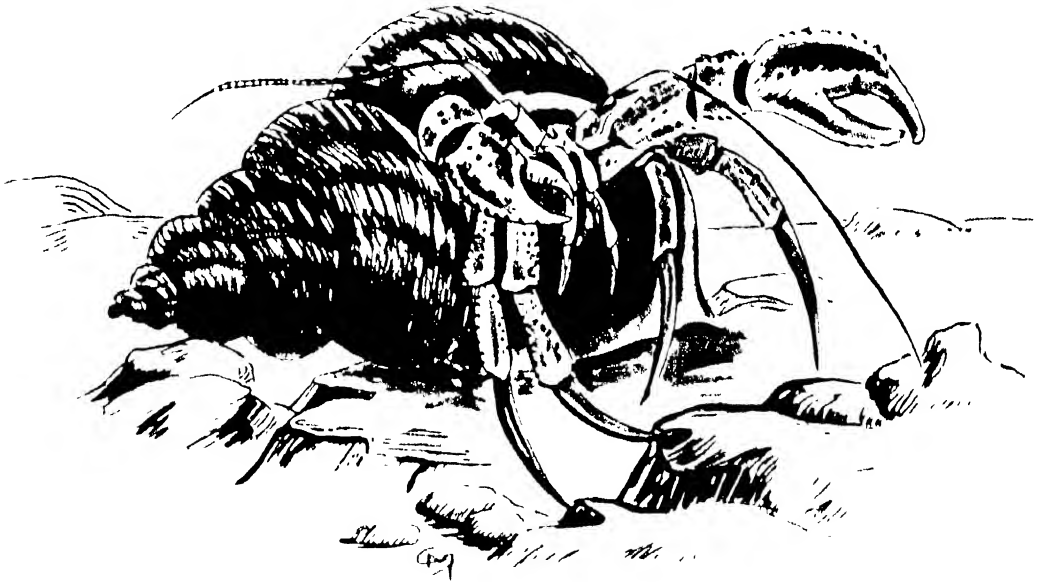


FIG. 109

Hermit Crab in Whelk Shell

no morsel of offal, mollusc, or animal that may cross their path.

The young crab, not having an elastic skin, has to moult frequently—a painful process. For this he retires to some sheltered nook, throws himself on his back, swells out his body and forces the upper and lower parts of the covering shield apart; then comes the tedious and painful labour of withdrawing his claws through the tiny joints. When this is accomplished, the crab, soft and wretched, must lie hidden till his protective skin has hardened. Among the jetsam we may often pick up these moulted crab cases, and they may always be known from those of dead crabs by the division between upper and lower parts.

the other, and closes the door against intruders. (See Fig. 109.)

Acorn Barnacles

We must not leave these strong armoured creatures without noticing one of the strangest. On this rock lives a colony of acorn barnacles, each in its little white cone, closed by two valves at the top. As the tide wells up and the cones are covered, the valves open, there is a swishing sound as each barnacle pushes out twelve curved feathery "legs," then after a moment a more sudden movement, and the legs are withdrawn and the valves closed. These alternate movements are continuous, and are the

means whereby food and air are provided for this little creature, which is fastened by its head to the bottom of its home and "lies licking its food into its mouth."

rockling; fifteen-spined stickleback; and small flat fish that live so close to the shore that they are often left behind in pools by the receding tides.

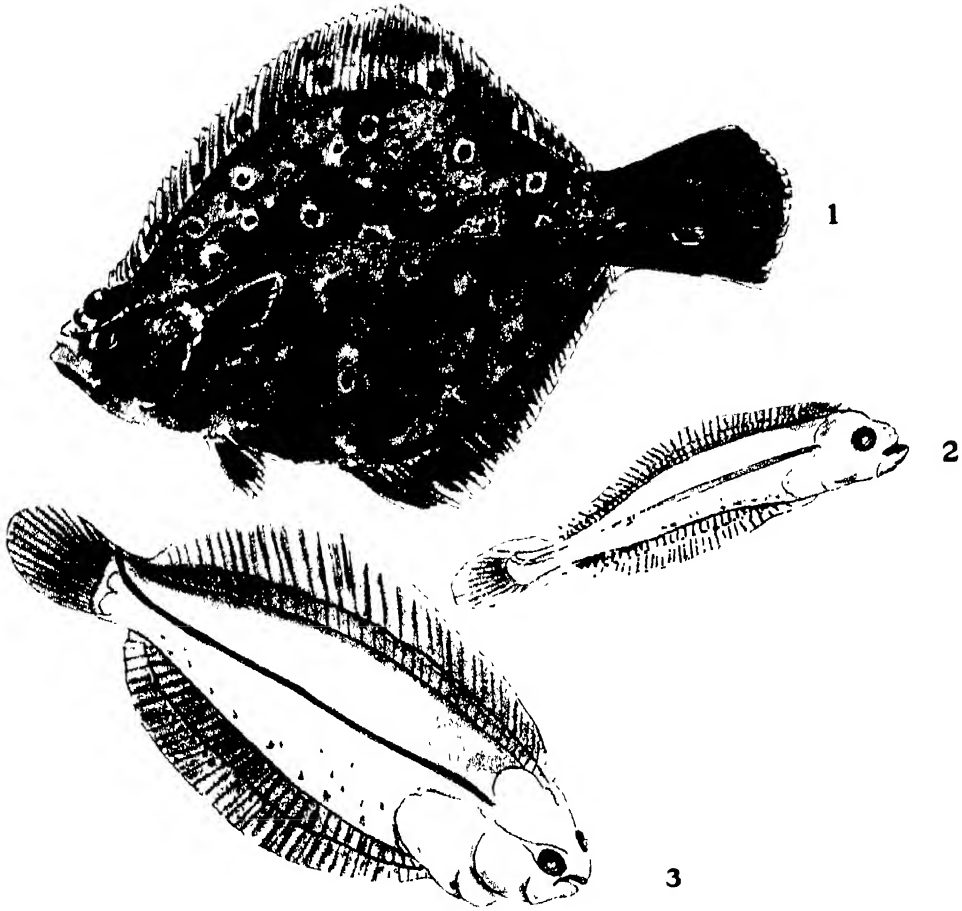


FIG 110

Three Stages in the Development of the Plaice

- (1) Adult (2) Babyhood, eyes on each side of head (3) Left eye has nearly come round to the right, upturned, side
(N B Size of (2) and (3) are greatly exaggerated in proportion to grown fish. No (3) would be about 1 in long, and (2) much smaller)

Going Fishing

No child goes to the seaside without thoughts of fishing, but at first fish seem conspicuous by their absence, for those that inhabit rocky shores are skilful in hiding. Among the weeds, in the deeper pools, may be found the little blenny, with tentacles on its large head to assist its movements among rocks and stones; the

Most children like to see the fishermen's boats come in and examine the contents, while good use may be made of visits to fishmongers' shops. Here they can see many varieties of flat fish, and if they have been told something of their curious history they will certainly be interested in noting the differences of colouring.

Young flat fish have eyes on each side of the head, just like other fishes, but they like to rest

on the sea bottom on one side. Gradually the side on which they lie becomes white, while the upper imitates in colouring the ground on which they rest, and is thus wonderfully protective. As the fish acquired this habit, the under eye gradually became modified, altering its position until both are seen on the uppermost surface

Soles and Plaice

The sole likes to rest on sand, and its coloured side is brownish sandy. When soles, after swimming by undulating their bodies, settle down, they flick a little sand on to the edge of the fin, thus obliterating their outline: this makes them very difficult to see on the bottom.

The plaice (Fig. 110), which likes pebbly banks, has a variegated colouring with red spots suggestive of pebbles, while the turbot, living farther out on the mud tracks, has a greyish colouring with little raised knobs to make its body look like the rough, muddy ground.

While the expert can recognize the sole, plaice or flounder by their shape, it may be useful to the learner to know that if a finger is run along the upper surface of the fish from tail to head the plaice feels quite smooth, the sole rough, and the flounder rough only along the centre line.

The Cod Family

The cod (Fig. 111) is familiar to many children, and is the head of a large family of fish. At the fishmonger's it may be seen that hake, haddock, and whiting bear a very marked resemblance to it, though differing in size and in minor characteristics. Thus, under the lower jaw of the cod is a sensitive feeler, which is much shorter in the haddock and absent from the whiting. Another difference is that above the pectoral fin of the haddock is a dark patch, known as St. Peter's thumb mark. In all these fish, the fins are supported by soft rays.

They roam about the open sea wherever the herring shoals are to be found, and one member of this group, the hake, is particularly greedy, following the pilchards and gorging till it becomes helpless.

The Mackerel and Herring

Another fish that follows the herring shoals is the mackerel. One of the fleetest swimmers in the sea, it is beautifully formed for swimming.

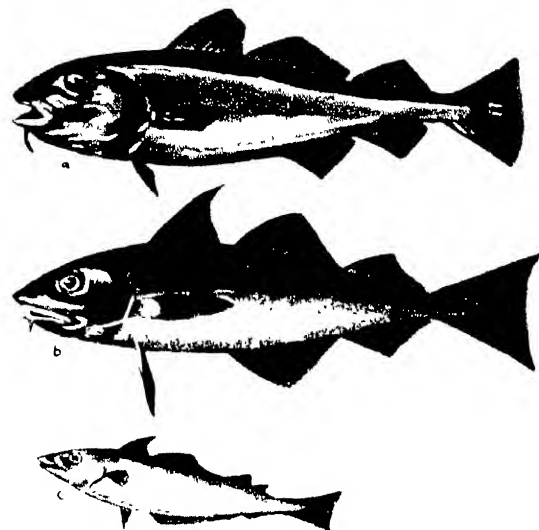


FIG. 111

(a) *Small Cod*, (b) *Large Haddock*, (c) *Whiting*

with extra powerful muscles that give it strength and speed. The elegant shape of the body with the ventral cut-water fin has been copied in racing yachts. Of all our food fishes the mackerel is the most beautiful, with its zig-zag bands of black and green, and its metallic iridescence ranging from a silvery hue to a coppery gold.

Mackerel lay their enormous numbers of eggs in the sea not many miles from land, and as the eggs drift towards the coast and hatch, the tiny fish shelter in safe bays.

Another set of fish, the herring, sprat, pilchard, and anchovy, are closely related, and so similar in appearance that for long sprats were thought to be young herrings. They have slim spindle-shaped bodies, silvery scales, and all have soft fins.

The name "herring" means "army"; no fish is more numerous. It roams the sea in immense shoals of millions of individuals, preyed upon by cod, haddock, and whiting; while near the coast innumerable sea birds take their

toll of them. It comes close to the shore to lay its eggs among deep rocks, where they cannot be trawled or destroyed in large quantities, though



FIG. 112

Mermaid's Purse

whiting and haddock find out these spawning grounds and eat greedily of the eggs.

Herrings themselves feed on crustaceans, which swarm in the sea, and strain this food from the water by means of a sieve-like arrangement in their throats. Possibly these fish can communicate with one another, for they can squeak, and they possess a hearing apparatus

The Skate

Another common fish, quite unlike those

mentioned, is the skate. It has a flattened rhomboidal body, its pectoral fins extend nearly to the front point of the head, and its bones never harden, remaining cartilaginous. These fish pass most of their time near the bottom, swimming about with an undulating movement of the large wing-like fins. Their food consists mainly of crabs, oysters, whelks, mussels, and small fish. The mouth should be noted under the head

Skate's eggs are of special interest, being the familiar mermaids' purses (Fig. 112) so often picked up on the shore. Each is an oblong horny case, with a long tendril at the angles so that these can catch in seaweed and moor the egg in clear water during the long period required for hatching

In no part of the world do we find such crowded life, such hunting and hiding, such devices for securing food and eluding enemies, as on the seashore. Prof. Arthur Thomson speaks of it as a great school—"A place of changes and difficulties, and the tenants must learn to meet these. It is in some ways like an unsettled country, the inhabitants must know how to circumvent or bow before fate, to hide from danger, to be on the alert against sudden disturbance. It is an idea worth pondering over that some of the lessons of life may have been first learned by the animals of the seashore. There is no room there for slackers."

PRACTICAL WORK FOR CHILDREN CONNECTED WITH THE SEASIDE

Shells

(a) MAKE collections in two boxes—one for bivalves and one for univalves.

Elder children should make a number of divisions for different varieties, e.g. snail, turret, top, etc.; or, better still, glue a number of match boxes into a large box to form a shell cabinet. Knobs to the drawers can be made with boot buttons pressed in from the front, and a piece of match stick slipped through each shank.

(b) Arrange shells in a design on the lid and round the sides of a box, and fix with seccotine.

(c) String shells for a necklace to give to a friend who has not been able to go to the sea.

Seaweed

(a) Collect fine seaweed, cut off small pieces, float each singly in a basin of water; take a sheet of white paper, slip it into the water under the seaweed, and gently lift out. When drained, the seaweed will adhere to the paper.

(b) Elder children should make a seaweed scrapbook, drawing those they cannot float out or press.

(c) Float out the prettiest seaweeds on correspondence cards, to send as Christmas cards.

Sand

If the coast shows rocks of various colours, as in the Isle of Wight, fill a bottle with layers of sand. By tilting the bottle when filling, zig-

zag arrangements will show. Such bottles, corked down, can be used as paper weights.

Pebbles

Collect the most beautiful pebbles, put in a bottle, and fill with water to show up the colours.

Flowers, etc.

Make a scrapbook of drawings of shore plants. Collect post cards and pictures of the place where you are staying.

Boats

Excellent boats can be made from a narrow piece of wood cut by father or elder brother at one end, and a splint of thin wood thrust into the cut. With one or two long skewers for masts, and strong paper sails cut different shapes, and renewed as required, very satisfactory cargo, transport, and racing boats can be made.

Co-operative Models

Make models showing—

(a) *Social life on the seashore.* Bandstand, pier, paper and sweet kiosks, Punch and Judy show, bathing machines, etc.

(b) *How our shipping is protected.* Lighthouse on rocks, boats to and from land, ships passing, coastguard house, lifeboat and shed. Most of these can be made from boxes of various sizes, paper, corrugated cardboard, toy bricks, and Plasticine. (See also *Model of Dock*, page 742, and *Fishing Village*, page 741.)

EARTH AND SKY KNOWLEDGE

CLOUDS, RAIN, SNOW, DEW

FOR another aspect of Nature we turn to the sky and its phenomena. So much on the earth depends on the distribution of water, on clouds, heat and cold; but such things are less interesting to children because, apparently, less "alive" than birds, animals, or even plants. Hence, the teacher must consider more particularly how to unite this part of Nature study with children's natural interests and characteristics, such as their delight in activity, the love of change, their feelings of curiosity and wonder.

Through the daily Weather Chart (*see* page 760) and Nature Calendar (page 759), they become familiar with such observations as that it is a rainy, cloudy, or sunny day. But older children can do more than this: they can learn something of what causes clouds to form, why it rains or snows, and why, sometimes the grass is so thickly covered with drops of water that it looks white.

Study of Clouds—Evaporation

Before they can understand how clouds form, there should be some experiments with evaporation. Pour into three saucers the same amount of water, and set one out-of-doors in the sunshine, another in the shade, and the third on a window sill indoors. Also, in narrow-necked vases, pour the same amount and set them in similar places. Note the date, and watch each day to see which water is disappearing most rapidly. Children are sure to make a "race" of it, and see which "wins." They will find that the saucer placed in the sunshine empties first, while the narrow-necked vases take a very long while to empty. Then may come the question—"Where has the water gone?"

Steam

Perhaps a small kettle of water boiled over a spirit lamp may help to answer this, and some

further experiments will be useful in connection with finding out how rain is formed. From the spout comes a cloud of steam; children know it is water, because, if a cold slate is held in it, drops of water form and run together, just as they often see when mother lifts a lid from a saucepan.

They will realize that the steam goes into the air, and though they cannot see it, it makes the walls damp. Reference can be made to washing days, or to bath nights, when walls feel clammy and sometimes drops trickle down.

In boiling water, heat was applied from below, but in evaporation, try to help children to form a picture of the heat waves from the sun penetrating the top layer of water in the saucers, and forcing little particles apart so that they become very light and escape into the air. It is with this invisible "water dust" that clouds are made.

The steam from the kettle may be compared to a tiny cloud, formed by the "water dust" coming into cooler air outside the kettle. If a spirit lamp is held in the steam, nothing is to be seen round the flame, for the heat has divided the drops, making them so small as to be invisible. Just near the spout also there is no visible steam, yet we know water is there because, as it cools, it forms the steam cloud.

Composition of Clouds

Perhaps now children can appreciate the fact that when this invisible "water dust" becomes chilled, it forms something that looks a little like a vast cloud of steam. But what chills it? In some parts of the country children live near mountains, and they will be familiar with clouds crowning them; the mountains act like the cold slate, and cause particles of "water dust" to run together so that we see them, and we say a cloud has formed. Other children will know how warmly people who drive aeroplanes have to wrap up, because it

is very cold high in the air—so cold that some may have heard that the tops of high mountains are always snow-covered

When the "water dust" that is so light

Cloud Formations (Fig. 113)

From day to day clouds may be watched and drawn with white chalk on blue paper, and if



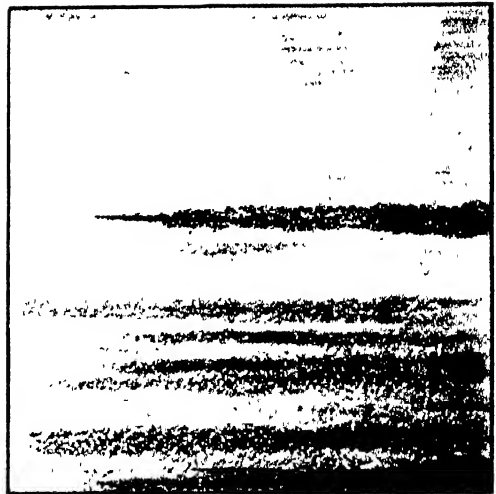
a



b



c



d

FIG. 113

Clouds

(*a*) Woolpack (*Cumulus*), (*b*) Curl (*Cirrus*), (*c*) Mackerel Sky, (*d*) Line (*Stratus*)

reaches this high part of our atmosphere, the cold causes the particles to run together and form a cloud. Other "causes" of condensation, such as expansion of gases, are too difficult for young children to understand.

the observations are carried on over a long time, the chief forms may be distinguished. In spring and summer the beautiful woolpack clouds, with their straight bases, are to be seen; and often, on windy days, there are curly clouds,

and some that look like a shoal of fishes. Often, in the evening, lines of cloud appear across the sky, low down, near the setting sun; and sometimes large dark grey clouds with ragged edges form, and we say it is going to rain, for storm clouds are travelling.

On windy days, watch how quickly the clouds move, and perhaps some sharp children may notice that some clouds, higher up, move in opposite directions, showing differences in wind currents.

Advantage should be taken of short winter days to watch the colour changes in the sky at the setting of the sun, and children might

some things, especially grass and leaves growing near the ground, become very cold. These, in turn, chill the water vapour around them and are soon covered with drops of water we call dew. Dew can be formed by bringing a glass of cold water into a hot room, when water vapour condenses on the surface.

On very cold days in winter, "water dust" freezes and forms the beautiful hoar frost that makes the country look a fairyland.

Day and Night

Some very elementary teaching should be

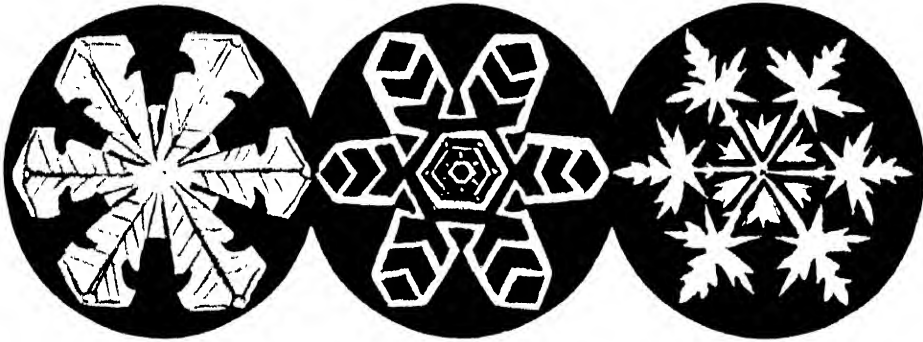


FIG. 114

Snowflakes (enlarged)

be reminded to look out of the window, when they get up in the morning, to see if the sky is red.

Rain, Snow, and Dew

Perhaps a colder wind, or a wind very full of water vapour, blows towards a cloud, then the drops run together, and become larger and heavier, so that they can no longer be held up in the air but fall as rain. If it becomes still colder, in winter, the "water dust" freezes and arranges itself in little six-pointed stars, and falls to the earth as snow. Some of the star shapes can be seen, if the children catch them on their sleeves, and look at them directly they fall. (See Fig 114)

Other effects of chilling water vapour may be noticed. During the day the sun heats the earth, but at night the heat waves are given back and

given to help children understand why we have day and night, summer and winter.

We can illustrate the cause of day and night by means of a large globe and an electric torch. The room should be darkened, and, while one child may hold the torch to represent the sun, another may turn the globe, on which a piece of paper has been stuck, to mark the town or country. The light and dark parts of the globe are easily seen, and can be related to our earth as it turns before the sun (Fig 115).

If some find a difficulty in thinking of our earth as rotating and refer to what they *see*—the apparent movement of the *sun*—further explanation may, for the present, be left. After all, it is not easy, even for adults, to realize the movement of the apparently stable earth. The important point that day and night are caused by the rotating of our earth has been put forward, and will gradually be realized.

Shadow and Position of Sun

While the room is dark, make some shadow play by placing the lamp or torch in different positions—just over an object, slanting, and on a line with it. Find out when the longest shadows appear, when the shortest; when the faintest, and when the darkest. Against a white wall, or sheet of paper, by placing the hands in different positions, throw shadows of rabbits, fish, birds, etc. These will delight the children, and by altering the position of the light in relation to

would be too great confusion. Hence, it was necessary to divide the day into hours, and one of the earliest methods of recording time was by the sundial, whereon the progress of the sun through the day was shown by the casting of the shadow of an upright piece of metal (Fig. 116).

On wet and cloudy days the sundial was useless; in fact, on many old dials we find the statement "*I mark onlie sunne dayes.*" At one time people burned candles with rings on them, marking approximately the amount that would be consumed in an hour, and now we have clocks



FIG. 115

To Illustrate Day and Night

the hands, again children will see when the longest, shortest, faintest, and darkest shadows are cast.

On a sunny window-sill place a sheet of white paper and on this a toy, such as a small elephant or dog. Then mark on the paper the direction and length of the shadow, early morning, mid-day, and late afternoon, and associate these with the apparent movement of the sun. Ask the children to find out when their own shadows are longest and shortest, and to see if the same thing happens every day.

Telling the Time

With these observations can be associated the divisions of day and night into shorter periods. We cannot say we will go to school or have dinner "in the day time"; there

that tell us the exact time by night as well as day.

The Seasons

Although children can note the difference between summer and winter, spring and autumn, by means of differences in vegetation, temperature, clothes, food, games, etc., it is a somewhat difficult matter to help them understand what makes these differences. At best we can only make a beginning by means of crude illustrations. It may be told that our earth makes several sorts of journeys—one that gives us days and nights, and a very long one that gives us our seasons. A child, representing the sun, may stand near the middle of an ellipse which is marked in chalk on the floor. Another child, carrying an inclined globe, with our

country marked on it, may slowly revolve it in this ellipse. In spring and autumn it will be seen that the earth seems nearer the sun, and that in winter our country is turned farthest away, while in summer it gets most sunshine. This is illustrated in Fig. 117.

Wind and the Weathercock Compass

At certain times of the year winds blow strongly; thus, in March, September, and often in November, we expect stormy or squally weather with high winds. Again, it is difficult to explain what causes winds, though even here some preparatory observations may be made. If you hold a lighted candle in the middle part of an open doorway, the flame is fairly still; now gently lower it to the floor, and the flame will be seen blowing *into* the room; next hold it at the top of the doorway, and the children will see the flame blowing *away* from the room.

On still days one may see smoke carried upward on the air; and a piece of down put in the air current above the lamp moves upwards.

Such little observations may help children to realize that heated air rises upwards, and seeks

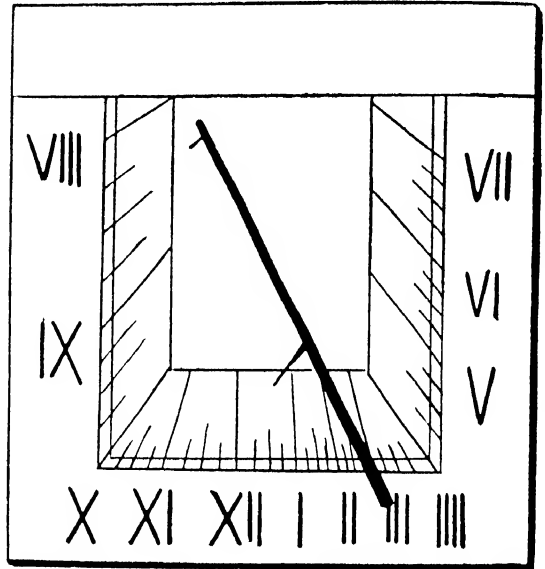


FIG. 116

Sundial

*"No one shall ever say of me
I marked a cloudy hour for thee"*

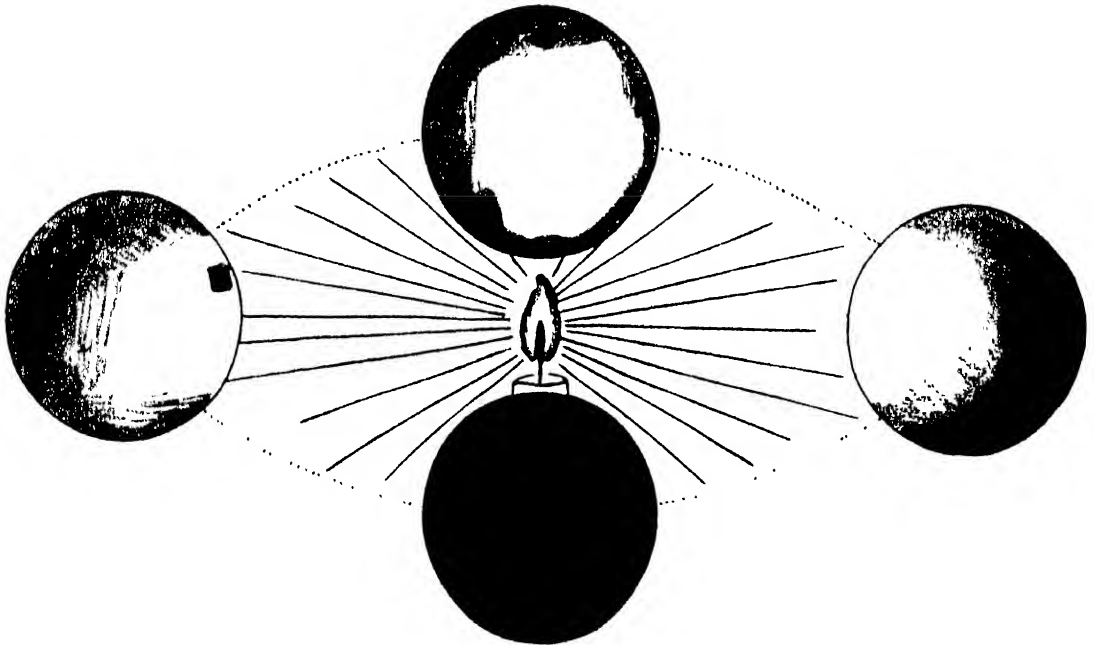


FIG. 117

To Illustrate the Seasons

A Piece of Stamp-paper represents the Country where the School is Situated

to find different outlets, e.g. the current at the top of the door, while cool air from outside the room comes in near the floor to take the place of the warm air, and is felt as a cool draught.

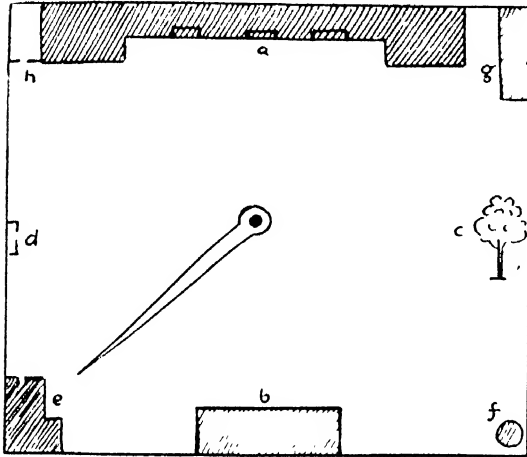


FIG. 118

Plan of Playground to show Direction

So with the Winds

This may be used as an illustration of what happens in the world. The sun heats the land on which it shines, and the air above gets warm and rises upwards, while cold air comes in to take its place. This cool air we call wind. Children are not ready for much more about winds, except to discover their work, and to find out the directions from which they blow.

In school, little paper windmills are often made from squares, and children find from experience that these blow better if they are held facing one definite way. Nothing will be known at first of the cardinal points, but fixed positions in the playground may be taken. If the teacher draws a chart of the playground (Fig. 118) with the agreed points, such as a factory chimney, the covered shed, the drinking fountain, etc., and by means of a paper fastener attaches a pointer, the children can find out from their windmills the direction of the wind—whether from shed, fountain, etc., and the pointer may be moved appropriately.

Later, through the help of a shadow stick, something of the daily earth movement may be learnt (only to the children it will seem a sun

movement), and they can learn the names of the cardinal points. These can be substituted for the rough drawings on the playground wind chart.

Making Compasses

Plenty of practice in reading directions should be given. Let the children make little compasses from squares of paper folded as in Fig. 119. Then let them stand about the playground with their *North* pointing to the north of the playground, and then find the directions of Tom's, Mary's, or Edie's house. They should, with the help of the fixed North, learn to tell the direction of the wind and to record it on the Nature Calendar (page 760).

Inspection of a mariner's compass soon shows children that while this disc turns readily, their little paper compasses remain stationary. They will note that however the real compass is turned the magnetized disc always points to the North, and they will like to make theirs do the same.

It is not very difficult. Get a wooden or cardboard ornament box for each child, and cut a circle of paper a little smaller than the box. Divide it, by measuring, into eight equal parts,

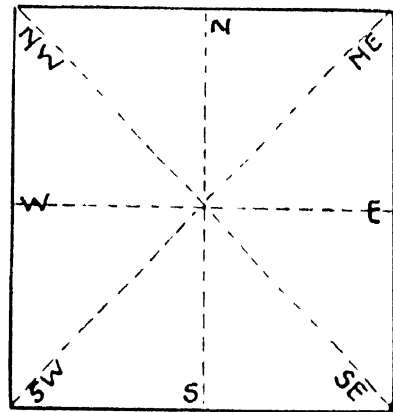


FIG. 119

Paper Compass

and print N., NE., E., etc., on these points. Stick a small bead in the centre underneath, and then take a magnet and some needles (or parts), and rub them so that they are magnetized. Under each disc, stick one so that it

points from the centre to the North. Through the middle of the bottom of the box push a pin, and slip the disc with the bead on to the point. Although the little toy will only act approximately, when the box is turned, the disc, magnetized by the needle, will come round to the North. (See Fig. 120.)

The Weathercock

The children are now likely to be interested in the details of a neighbouring weathercock

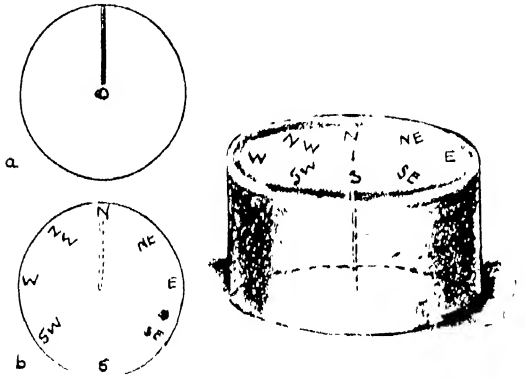


FIG. 120

Toy Compass

They will know something of direction, and can see how the wind, blowing against the cock's tail, turns it with the head pointing to the way from which the wind is blowing.

Holiday Work

For holiday work it might be suggested that children keep a full account of the weather, with wind and temperature changes, for a whole week. Any specially interesting skies and cloud formations should be noticed, and if possible, drawn.

Fig. 121 shows an example of such a record

The Tides (Figs. 122 a and b)

During the summer many children will have been to the sea, and those who live in seaside towns will know that, twice each day, the tide ebbs and flows, so that sometimes they can

wander far out over the sand and shingle, while at other times there is very little room to play.

"What makes the tide come up?" is a question familiar to parents—a difficult question, yet a magnet may help to answer it sufficiently for the present. Show how a magnet attracts iron. If some filings are scattered on a sheet of paper, and a magnet be drawn along underneath, the filings will be disturbed and even move as the magnet passes them, while, if it be brought near to needles or nails, these will attach themselves so firmly to it that they will have to be pulled apart.

Children may know that the moon travels round our earth every month, and the moon may be compared to a great magnet acting, not on iron, but on water, and as the earth turns round each day, whenever a part passes under the moon's influence, the waters are heaped up and we say that it is high tide. As the particular part of the earth turns away, the waters recede, because they are drawn up elsewhere.

Twice during the month in the earth's journey the moon, travelling round the earth, comes in a line with the sun and then both pull together, so that we have extra high tides; and twice in the month the sun and moon pull in opposite directions, taking part of the waters, and so we have low tides everywhere.

Satisfy Natural Curiosity

In all this part of Nature work, give the children only as much as will satisfy natural curiosity. Many a child has been made to dislike weather and sky and earth-movement study by too much stress on details of facts difficult for the realization of adults. But help them to see, through the door of imagination, the great winds sweeping round the world, purifying where they go, blowing away noxious odours, germs of disease, bringing life, giving fresh air to us all, tossing the surface waters of the ocean into waves, and mixing them with air that enables all living things in the sea to breathe, bringing the rain that turns deserts into fertile lands.

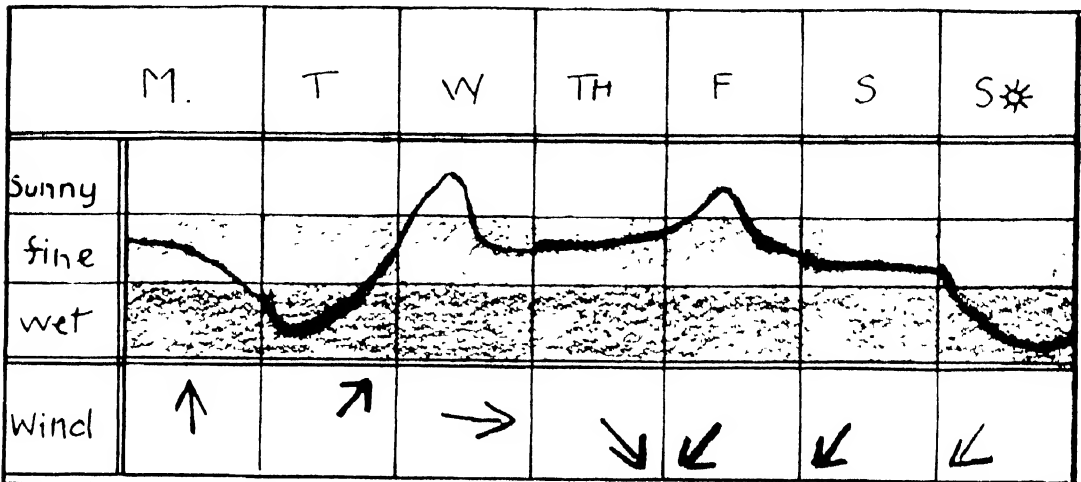
And let them know how the tides penetrate nooks and crannies of the shore, carrying away much that might injure health; of their use in

helping ships, and in controlling many of the movements of fish.

Wonders of the Ocean

In Nature study we have so often to deal with small observations, that we sometimes forget the craving of the human spirit for wide

spaces and great heights, for the unknown and mysterious. Let us then tell something of the wonders that are far afield, remembering, perhaps, when as children set to tasks that irked, we escaped on the wings of imagination and roamed the big rivers, the dense forests, followed the albatross, and gloried in the winds that piled the seas "mountains high," and drove great



DECEMBER

- 10 not very nice cold wind very cold
- 11 very windy. stings your face
- 12 windy sunny in the morning. cold frost
on ground
- 13 dull and cold can't go out
- 14 sunny morning looks like raining now
- 15 drizzel - horrid——
- 16 rains all the time gray clouds

FIG. 121

Child's Calendar for one Week

ships before them. The world was ours to visit, and the wonders of the ocean seemed the most marvellous of all.

Perhaps we have seen the sea all shining at night, with ships cleaving through waves and spurts of fire, and leaving broad pathways of light in their wake. We have watched dolphins sporting among the waves, and shaking from

illumination and appear to carry their own torch lights. Perhaps these help them to see other fish, or may attract, or warn them.

The Mysterious Poles. Whales

Then we may travel north and south, to where, in the cold seas of the Arctic and Ant-

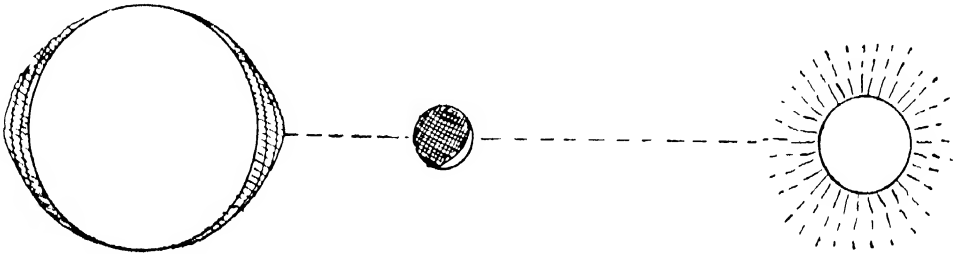


FIG. 122 (a)

When Tides are High

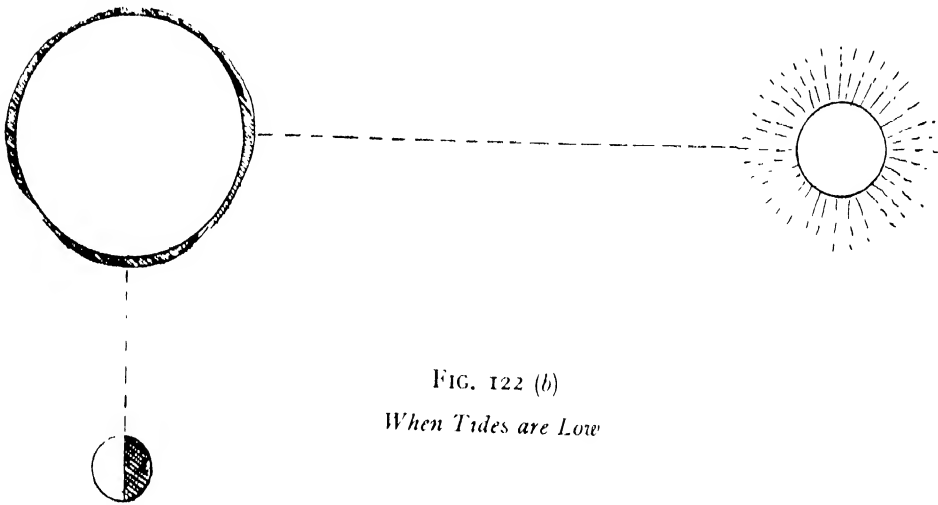


FIG. 122 (b)

When Tides are Low

their bodies drops of water that sparkled like gems. This shining of the sea comes from phosphorus that is present in the bodies of most sea creatures, such as anemones, shrimps, crabs, and deep sea fishes, but especially from millions of tiny creatures called *noctiluca*, or night lights—so small that they can only be seen through a microscope, yet existing in such myriads that ships can travel all night through a phosphorescent sea.

In great depths no light can penetrate, yet many of the strange-looking fish are brightly

arctic, we may join in the search for whales (Fig. 123), the largest animals on earth, which propel themselves by means of their great tails.

We can see them, many together, as they come to the surface to spout out jets of vapour from their blow holes, or single nostrils, set far back on the top of the monstrous heads. We can sometimes see the calves playing with their huge mothers, who nuzzle them and pat them with their front flippers, much as other animals sport with their babes. They swim slowly

along, with mouths open to take in enormous gulps of "plankton," formed of fishes' eggs and fry, and minute sea creatures which are strained out from the water by means of baleen, or

them long distances ere they fall into the sea and make ready for another leap.

Perhaps we may have bad weather, and see one of the great marvels of the sea, a water

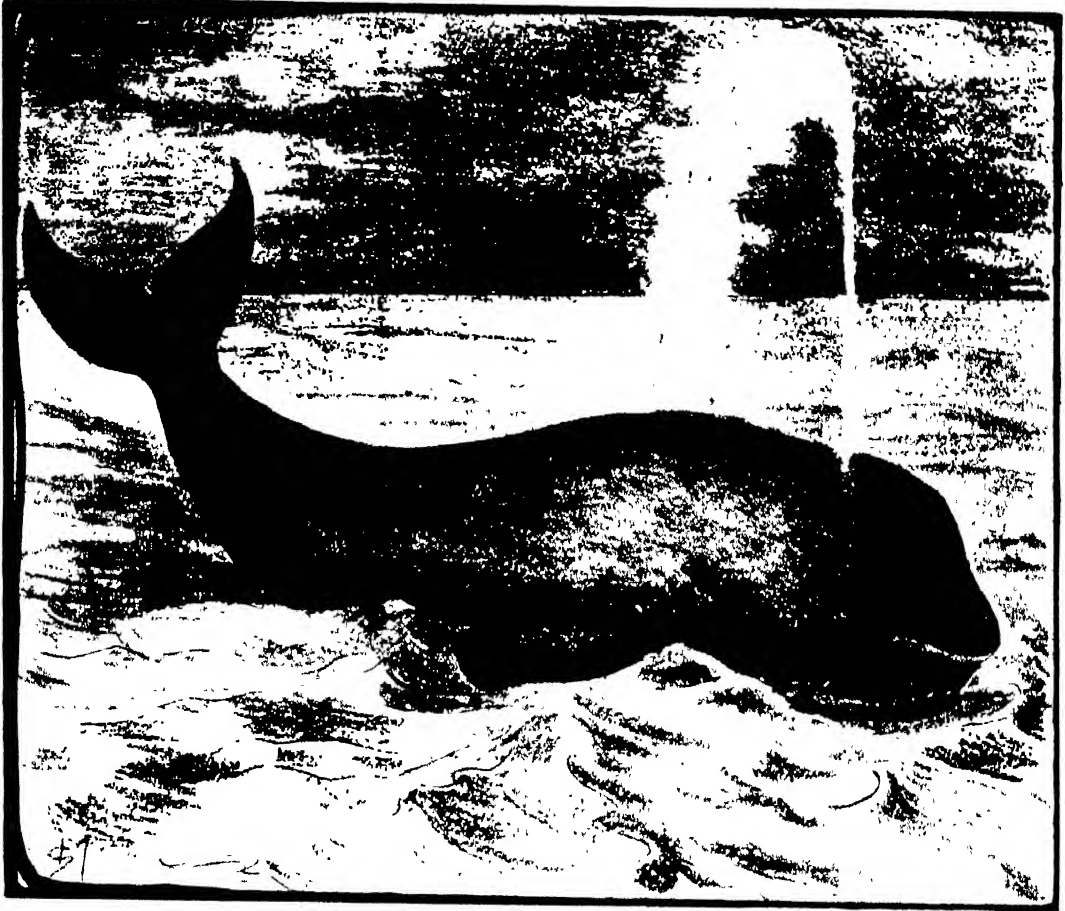


FIG. 123

The Whale

fringes of whalebone, that hang from the roof of the mouth

Flying Fish. Waterspout

If we roam into warm waters, shoals of flying fish (Fig. 124) attract attention. These graceful little fish have large pectoral fins, which they spread as they leap out of water, when pursued by their enemies the dolphins. They cannot really fly, but the spread fins carry

spout. The sky grows dark, the wind whistles, and the waves toss and roar. Then we see a dense thick cloud in the shape of a cone which, whirling and reaching down, draws up the water in another cone till the two meet and move along--and woe to the ship that lies in its path.

The Coral Islands

Or we may venture into tropical seas among the coral islands, surf-ringed and clothed with

graceful coco-nut palms. We can take a shallow native boat and go out to the surrounding reefs and watch the coral polyps at work.

They look like small anemones and lie with millions of extended arms quiet in the water,

fish, green, blue, and orange; sea snails and molluscs, with gorgeous shells, creep about; while fronds of seaweed and corallines of every shade of cream, pink, and red make the reef look like a wonder garden.



FIG 124

Flying Fish

till tiny creatures or scraps of food come by. Then, seizing them, they tuck them into their ever-ready mouths. From the food, lime passes out and helps to form the walls of the polyps' homes, which are left behind when the soft bodies die and are dissolved. They form hard rock, the beginning of islands.

Among the branching coral dart bright-hued

The Pearl Fishers

In these warm waters we may visit the pearl fishers, and watch the dark men, with their feet heavily weighted, sink down to the sea bottom after oysters. They hastily fill their net bags, as they can stay only a short time under water. There is always excitement about this

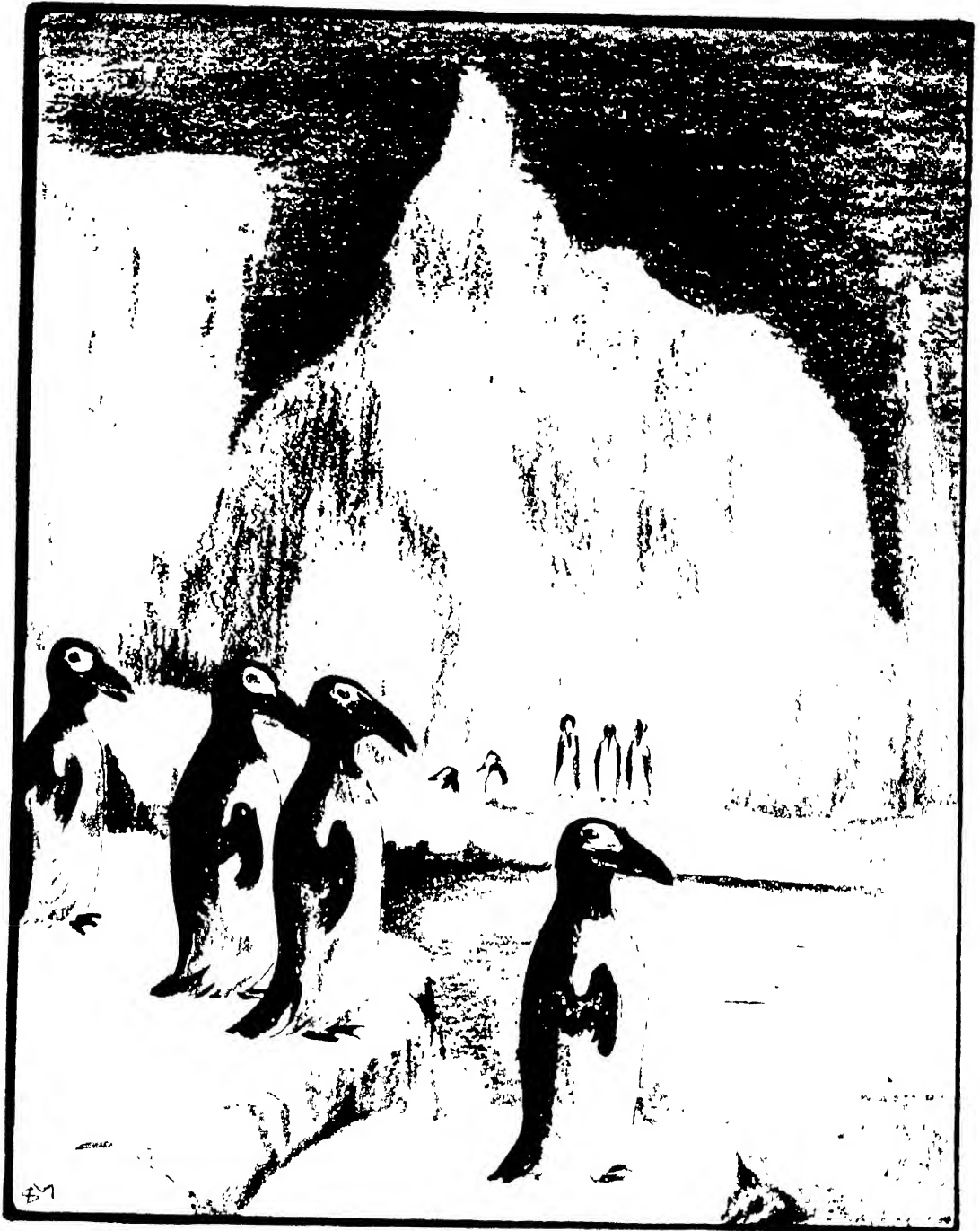


FIG. 125

Penguins

fishery, for when an oyster is opened it may contain a pearl of great value.

The Albatross

We might go to the stormy seas about the Cape of Good Hope and Cape Horn, and find the wandering albatross, the king of sea birds. He is larger than a swan, with an immense spread of wings, and for days at a time will tirelessly follow a ship, swooping down after scraps or any creature floating on the surface of the ocean. On some lonely uninhabited island it makes its nest and wages many a battle with the fierce gulls that come to steal its eggs.

There is no space to tell of hurricanes and tornadoes; of the giant sea of weed in mid-Atlantic, yellowy green in colour, with crabs and countless varieties of sea creatures camouflaged by the same hue, of the warm rivers that are in the ocean, of glittering icebergs and frozen seas, where the fierce polar bear seeks his prey, while his mate, shut up in her snow cavern, passes the long winter with her two cubs, of Mother Carey's chickens, and the quaint penguins (Fig. 125) of the Antarctic, of the

pearly argonauts, and of shells so huge that they can be used as babies' baths.

The Sea is More Mysterious

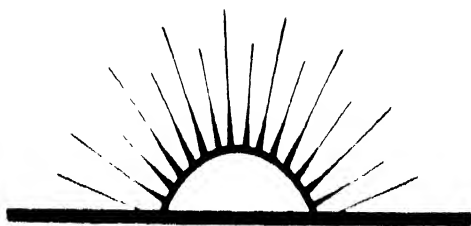
The wonders of the ocean surpass in thrilling interest the wonders of the land, great though these are, but the sea is more mysterious, has greater giants, more ugly monsters and goblins, and equally dainty sprites.

We meet with fights, hunting, adventures, long journeys, and romance, as we do on land; but here familiar happenings challenge attention, because the heroes and heroines are so unlike any we meet on land.

Reality surpasses imagination, and no one who has roamed and loved the sea can be surprised at tales of sirens and mermaids: of the marvellously sweet sounds that lure men to destruction, of sea serpents and magic islands with gardens of transcendent loveliness.

For such a one the ancient songster still strikes chords which vibrate as strongly as of old

*They that go down to the sea in ships :
And occupy their business in great waters ;
These men see the works of the Lord :
And His wonders in the deep.*



ART AND HANDWORK

THE IDEAS UNDERLYING THE CONTEMPORARY APPROACH TO THE TEACHING OF DRAWING

A Change of Outlook

DURING recent years great changes have come about in the approach towards the teaching of drawing in schools, and in London this is nowhere more evident than in the Infant Schools. A change is evident in schools of every type, however, and a more creative element is appearing in the drawings which come from them. This element is also beginning to be considered in the drawing sections of some of the public examinations.

It is common knowledge now that these changes are taking place, and "The New Art Teaching," as it has so dangerously come to be called, is even to be found, in a false and misunderstood form, in painting competitions organized for commercial purposes by advertisers.

The Underlying Principles

A full understanding of the exact nature of the ideas on which this teaching is based is not by any means widespread, however, even among teachers. It is easy to think that the provision of plenty of paint, large brushes, and big sheets of paper is all that is required of the teacher.

An adequate supply of suitable materials is indeed important, but the work does not depend entirely, or even mainly, upon this. It is essential that the teacher should have a true understanding of the work, and that she should possess the faith and enthusiasm which arise from such understanding, and from seeing the children's happiness in producing their pictures.

These underlying ideas are of course part of the contemporary attitude towards children and their education, but even people who accept exactly similar ideas in connection with other subjects, do not always recognize or accept them in connection with art. The reason for

this appears often to lie, not in their attitude towards children or towards education, but in their personal attitude towards art in general. This is of course a direct result of their own artistic education, and when some of the present generation of small children grow up and become teachers, they will not be faced with these difficulties.

Meanwhile the problem is not insurmountable, and an attempt will be made here to define it and to give some aid in its solution.

The Universality of the Ideas

The essence of the ideas underlying this teaching cannot be said to belong to a particular method, or to a particular person. The same conclusions have been arrived at by so many people, working independently in so many different countries, as to prove that this is not a "stunt," but a truth which has come to light as a result of growing interest in child psychology and in education, and of course in connection with contemporary ideas in art.

The pioneer in this field in England is well known to be Miss Marion Richardson, and the fine results of her influence are to be seen in most of the London schools, and in many throughout this and other countries.

Drawing is an Activity Natural to all Children

Although the opinions of the many educationists who have made an especial study of this subject may vary in detail, they have this main idea in common: that drawing is an activity natural to all children, and that as teachers we are opening the way for something which already exists in every child, rather than instructing, drawing out rather than putting in.

Among the many interesting exhibitions of

children's drawings was one held by the London County Council in 1933. In the official note to the exhibition Dr. Spencer, then Chief Inspector, said:

"The aim of the exhibition is to show an artistic expression that is characteristic of childhood."

Anyone who has seen exhibitions of this kind, even anyone who looks at the illustrations here, cannot fail to realize that there is a kind of drawing which is characteristic of childhood. The modern approach to the teaching of art may be said to be based on the idea that the production of such drawing is a natural and valuable part of a child's development and education.

It is something to be fostered and allowed to grow, rather than to be "corrected."

Children are Concerned with the Expression of an Idea

If we try to define the characteristics of children's drawings we think first of the fact that although they are lively and expressive, they do not as a rule conform to the conventions of naturalistic representation which are so widely accepted to-day.

Most of us base our judgment of a work of art primarily on its conformation to these conventions. We therefore find it difficult to give great value to the liveliness, the beauty of pattern and colour, which so often exist in children's drawings alongside this lack of verisimilitude. Equal beauty and liveliness will not be present in the drawings of a child who is made by his teacher to strive after something which is not yet his concern, namely the creation of an illusion. To do this, he would have to learn the scientific method of expressing on a flat surface the appearance of what is solid. But as Mr. Eric Newton said in a series of broadcast talks on art, "children are concerned with the expression of an idea, not with the creation of an illusion."

Children must Draw in their Own Way

Now it is only comparatively recently that it has been considered to be of importance to

understand the concerns of children. We have always known that children liked to draw, but the drawings they made by themselves were considered to be worthless, except perhaps to be laughed at. The business of the teacher was to impose an adult intellectual standard, and to "correct" the child's drawing by that standard, often even working on the drawing herself.

Thus the child who was considered to draw well was the rare one who could create illusions like a skilful adult, and the child who drew like a child was said to be "bad at drawing." Having no course but to agree, that child usually gave up trying, and took no further interest in the subject. Such children formed the larger part of every class.

On the other hand, in classes where work of the kind shown in the illustrations following page 913 is being done, every child is absorbed in what he is doing, and though there are degrees of achievement, they are all doing something which is natural to them. They are not being made to try to draw like adults, any more than to dress or behave like adults.

It is a step nearer the truth, then, to realize that a child's drawing may have value which does not depend on its photographic qualities; but it is not going far enough merely to say "The children must be allowed to work in their own way, and as long as their drawings are lively it does not matter that they are not life-like."

What may be Good in a Picture which lacks Photographic Realism?

Once this has been accepted, there are further questions to consider. If as teachers we are not conforming primarily to a standard of representation, to what other standard are we to conform? How is the work criticized? What is a good one? What is a bad one?

This is where we are led to a consideration of an artistic problem wider than those which have formerly been thought to be the concern of teachers.

We have to decide what may be good in a picture which lacks photographic realism, whether it is by a child or by an adult. (We are

taking into account the idea that a child's drawing may have genuine artistic value, without such considerations as that "it is good, for a child.") We have said that if a child is allowed to draw like a child, his picture will probably not conform to the laws of perspective. If we are to be able to value it in spite of this, we must accustom ourselves to the idea that the successful creation of an illusion is not the only quality by which to judge a work of art.

Roger Fry, writing of children's art, said "In order to face the question fairly we have to get rid of certain persistent habits of criticism which distort most contemporary judgments of works of art. We have to recognize that the merits of a work of art cannot be measured by the completeness with which natural objects are represented, nor by the science shown in that representation. We have to get rid of the idea that our favourable aesthetic judgment of a work of art is a kind of prize conferred on the artist for meritorious effort."

What is this other standard by which works of art may be judged? What is this mysterious quality which is said to make them good, whether or not they are naturalistic?

Examples

Here is a simple example which contains some indication of the answers to these questions—

It is possible to make a "correct" drawing of a box which only shows two sides, and to make another which shows all six. The first could be called "a box," and would show the box as it appeared under certain accidental conditions, its position in relation to the eye and so on. The second drawing could be called "boxiness," and might express more of the permanent facts about the box. One is a true statement about the appearance of a certain box at a certain time, the other is a true statement of an idea about the nature of boxes. Both may be equally good, both may have aesthetic value, but you cannot judge the second by the standard of the first.

Or take the example used by Helga Eng in *The Psychology of Children's Drawings*. A little girl drew a circle with four rays sticking out of it.

On being asked what it was she explained that it was her idea of a square box, the circle being the cube as a whole, the rays being the corners of the cube. Could she have expressed her feeling of the wholeness and yet corneriness of the cube more directly if she had been introduced to problems of eye-level and vanishing-points?

Two Languages

Here is an account of a conversation which arose after this last example had been used.

Q. "You are giving this as an example of a kind of drawing which may, as much as the more familiar kind, be called art. But how can this kind of drawing be called art, for even if the child had expressed her idea to satisfy herself, she had to explain it to her father. Surely a definition of a good drawing would contain some reference to the conveyance, by *drawing*, of a visual idea from one person to another?"

A. "Yes, a work of art has only completed itself when it has aroused an aesthetic response, a sharing of a new experience of beauty, in the spectator. But the spectator cannot demand to be spoon-fed. Painters may use either of two 'languages' in their pictures. One is easily understood nowadays, and it has come to be widely accepted as the only one which makes sense. When the other is not understood, it is condemned as gibberish. But who, not understanding French, would accuse a Frenchman of speaking gibberish, without first trying to learn French? Art is meant to be understood, but nowadays we make the mistake of thinking that no knowledge of art should be expected in the spectator."

The Visual Image as a Motive

Whichever "language" is used, the motive for making the picture must in some measure be a visual one, as opposed to a purely story-telling, propagandist or scientific one, if the result is to be a work of art which will arouse an aesthetic response in the sympathetic spectator. The motive may be purely visual, as it is in most pictures by children, and in the work of such a painter as Van Gogh.



1. A MOTHER LOVING HER CHILD



2. MADONNA AND CHILD



2. MOTHER

But though a propagandist, or story-telling, literary idea often spoils a picture, such ideas are often expressed through visualization, so that the very shapes and colours of the picture, its whole arrangement, express the idea. Picture No. 1, "A Mother Loving Her Child" is an example of this. The essence of the idea is contained in the protective, downward curving of the shape made by the figure of the mother, the seriousness of the subject is bound up with the deep colours used.

It is not suggested that this is the outcome of conscious thought on the part of the child, but that it is the result of her passionate realization of her subject in a mental picture, and the strong wish to paint which results from such an experience. In short, it is a work of art. Compare it with the Christmas card picture of the Madonna and Child, No. 2, which is meant to express the same idea, with even more significance. The shapes in this could be arranged and altered in any way, the idea is not expressed through them.

The Byzantine "Descent from the Cross" is an example of a picture with a religious motive, but the idea is expressed extremely movingly through shape, relation of shape, and colour. It has the same *inevitability* of arrangement which is to be felt in No. 1. We see sadness and tragedy as it were crystallized for us in the lovely balanced curves and angles, and yet we can contemplate it without the destructive feeling of horror which we should feel by seeing a photograph of a similar subject. We are sharing in the artist's vision, we are experiencing the aesthetic response

Skill Alone does not make a Work of Art

Imagine a painting of a tree. It may contain all the facts we already know about the appearance of a tree, way of growing, light and shade, perspective, all absolutely "correct." But if the painter had no personal painter's feeling about it, if his aim, consciously or unconsciously, was purely the scientific one of creating an illusion that the painting is a facsimile of the tree, then there is no aesthetic value in his work;

only the skill is admirable, and that has the value of a conjuring trick, and pleases us in exactly the same way.

If, on the other hand, he had a mental picture, a visual, painter's idea, then he will have made a work of art, whether or not his picture is naturalistic.

Adventitious Values

There may, of course, be values added to purely imitative work which have nothing to do with art. The accuracy of a drawing of a piece of machinery is of major importance to an engineer, and he would not welcome any expression of personal reaction on the part of the draughtsman which interfered with this. This is not to say that an accurate drawing, made for a practical purpose, cannot possibly have aesthetic value. Our drawing of a piece of machinery, while being perfectly accurate, may also be the expression of a fine sense of design in the way in which it is laid out, and this will make it in some degree a work of art. But this is again something added, over and above the *accuracy* of the work.

The Highest Value in a Work of Art

So we conclude from all these examples that what is of first value in a work of art is a quality which arises from a personal visual idea. This may be true of a picture by a child or by an adult, and this may appear to lead to the conclusion that all artists are children and all children artists. That is neither true nor untrue. We have said that pictures by either a child or an artist may be the result of a visual idea. The difference is that in the child this experience belongs mainly to the emotions, but in the artist it is enriched, or should be, by belonging also to the intellect. The similarity is that both are able to see and to imagine, vividly and freshly, without limiting familiarity. The artist retains from childhood his innocence of vision. He does not practise that half-seeing which, though we may not realize it, is the habit of most adults.

Half-Seeing

Roger Fry, in his book *Vision and Design*, deals very cleverly with this question of half-seeing.

He says that because the demands of everyday life are so urgent, most of us do not really look at things at all, unless they exist only to be looked at, as in the case of jewels. Once out of childhood, we simply read the labels, as it were, on the things we see.

How many of us, for example, really look at the spoon with which we eat our pudding? We recognize what it is, and we eat with it. But suppose that an artist made a drawing of a spoon in which he emphasized his keen realization of the subtle shape of that little bowl sprouting from its curious handle. We should probably be horrified by such a drawing, because, by that very emphasis, it would not conform to our universally accepted label for a spoon. This is not a suggestion that we should all spend more time gazing at spoons. The point is not that everyone should be able to see more vividly, for we cannot all be artists, but that we should allow ourselves to share in the artist's, or the child's, vision when it is presented to us. We may not be able to understand it, but we might be more willing to allow that the limitation may be in ourselves, rather than in the artist or the child.

The Child's Fresh Vision

So that in criticizing a child's picture which contains something new and strange to us, we may not always be right in saying, for instance, "Trees are never that colour," for we may be asking the child to modify his fresh vision to our half-seeing, instead of allowing his experience to increase our own.

Proportion

A child then may well express something which seems strange to us simply because we have never noticed it. There is, however, another kind of so-called distortion which cannot be explained in this way.

No. 3 is a picture of her mother by a child of

five, in which the head is very big in relation to the body. The reason why the head is so big is that the child's experience and knowledge have more to do with the head than with the body. The head spoke to her, kissed her, smiled at her. How could she have expressed her idea if her teacher had said "Start that again, dear, and make the head go seven times into the body. That one is out of proportion."

In fact it is not "out of proportion"; the sense of proportion is a different one, in which what is most important is biggest.

Primitive Art

The same attitude is to be found in some of the loveliest of all art, that of primitive or of savage people. Think of those altar-pieces which show a large Madonna surrounded by smaller angels, even smaller bishops, and smallest of all the modest donor. Like similar pictures by children, these are not merely the quaint results of ignorance, but works of art in which the language used is not connected only with appearances.

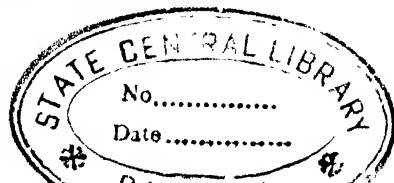
This parallel with primitive people is one which we find in many aspects of childish development, and it is very evident in primitive and childish art.

Roger Fry wrote, "We have in our midst, in children's art, an inexhaustible supply of just that kind of invention, just that immediate expressiveness, which we so much admire in primitive art."

In America, Hughes Mearns writes "The modern discovery of the child as artist—is coincident with the realization of the beauty of primitive art generally. The child is a genuine primitive. And now that we are treasuring every trace of the craft of the primitive peoples, the native art in Africa, Mexico, Egypt, the South Seas, it is fitting that our educational leaders should be rediscovering with joy and understanding the work of our own young 'natives.'"¹

To the child, as to the primitive, an important part of the aesthetic activity is the clarifying and externalizing of experience, the expression

¹ In *Creative Expression*, edited by Hartman & Shumaker, published by the John Day Co., N. York





4. THE PICNIC



5 GOSSIPS



6. HEAD



7. PORTRAITS FROM LIFE

of freshly-realized mental pictures, in addition to the sense of achievement and power gained by doing something which is within his capabilities

The Judgment of a Child's Picture

The true judgment of a child's picture is not, then, dependent on whether it conforms to our idea of proportion, or of the appearances of things. We have to try to judge whether it is the sincere expression of an idea, or mental picture, visualized before the picture was begun, for this power of visualization is the heart and mainspring of children's art, and of all true art

Neatness

This question of judgment and of appreciation brings us to the problem of neatness. The tidiness of a picture is no guide to its value either to the child or as art, and this is a thing which many teachers find most difficult to accept. They feel that there must be important value in "keeping inside the lines"

A good picture may indeed be neat, and deft, and choicely done, but then a bad one may be neat, and dead, and insensitive, because the child was so busy keeping inside the lines to please teacher that he had no time for anything else. It is a matter of individual temperament, and not of morals.

A child who is eagerly and sincerely expressing a mental picture often works very quickly, and partly for this reason, the paint may be laid on freely, the picture may not be a neat one. It may have qualities far above mere neatness, for bound up with his eagerness to express his idea are his native love of rhythm, his sensitiveness to colour and texture. These qualities will never appear in work which has been done in a bored or slack mood, or by a child who for some reason is not sure what he is about

Accuracy

In the chapter on "Accuracy" in his book *The Changing School*, Dr Ballard writes

"To say that these early expressional drawings are inaccurate is to use the term in a

limited sense. It is true that they fail to conform to an external standard, but there is every reason to think that they conform closely to an internal standard. So the notion of accuracy as applied to drawing has a double reference; and what seems inaccuracy is often accuracy of a higher order—allegiance to a higher ordeal."

Recognition of the Merit of Children's Drawings

How to be aware of this allegiance when it is present in a child's drawing, how to recognize and appreciate the beauty which arises from it, is a power which seems to come naturally to some people (not necessarily artists) but which can be developed through experience. No teacher need despair of it, if by teacher we mean someone who is in sympathy with children. Nothing leads to it more surely than being in contact with children who are doing the work. Many teachers, when they begin it, say "I don't know much about it, but the children do love it, there's no doubt of that"

After theorizing and thinking about the subject, defending the work and trying to explain it, a return to the children, to watching them at work and to seeing their pictures, gives most strongly the feeling that here we are in touch with something belonging to the heart of life. No one of any sensibility can fail to have the same experience in seeing the rapt faces of a group of seven-year-old children playing in a percussion band, acting, singing or dancing.

It is when we have this kind of experience that we are nearest to an understanding of the full importance of art, not only to children, but in life

The Teacher's Own Standard of Taste

The Infant School teacher may feel on reading this that it is rather elaborate for application to her particular problem. She may feel that there is no particular value in her considering the differences between the two "languages" of art, because however hard you try you cannot successfully make a very small child draw

photographically. It is, however, very much her concern, because if she herself holds a photographic standard, she will be incapable of judging the children's work, and the children will know that she does not take their pictures seriously, or derive any personal satisfaction from their beauty. Many of them will in this case accept what they realize to be her opinion, and they will do their best to please her. They will not then be working in their own way, and they will lose, perhaps for ever, the aesthetic activity which their nature demands

Conclusions

The drawings of young children are the expression of their ideas or mental pictures of the world about them, or of their imaginative life

Children are not concerned with imitating the appearance of things, they are *drawing their ideas* about them. This is not an activity to be stopped, or a power to be destroyed, which it will be if we try to impose adult ideas before they are demanded

Children's pictures express the very stuff of childhood, they have all the seriousness, the spirituality which children possess, as well as their gaiety. They have none of the sentimental, insincere, fairies-on-toadstools atmosphere which adults are apt to impose on children, and which is such an insult to them

As teachers, our part is to encourage and develop the power of visualization, freshness of seeing, and delight in expressing the mental picture

Although we can provide the most flexible and suitable materials, and help in the technique of their use, technique is best acquired when it is urgently needed for a specific purpose. We should beware of forcing technical knowledge on a child who does not at the moment feel any need for it. The idea, the need for expression, must come first.

Freedom to work in this way, knowledge of the teacher's attitude towards his work, can do much to ensure that the child will grow up aesthetically alive, whether or not he develops into a creative artist.

Two Pairs of Pictures for Comparison

Pairs of pictures by older children are chosen for comparison, because they illustrate most clearly the artistic problem which is under consideration

Very young children do not to the same degree make the artistic mistakes which are shown in Nos. 4 and 7, but the foundation for such mistakes may easily be laid by the teaching they receive

No. 4, "*The Picnic*," and No. 5 "*The Gossips*"

These two pictures were made from subjects chosen by the girls themselves, and painted at home

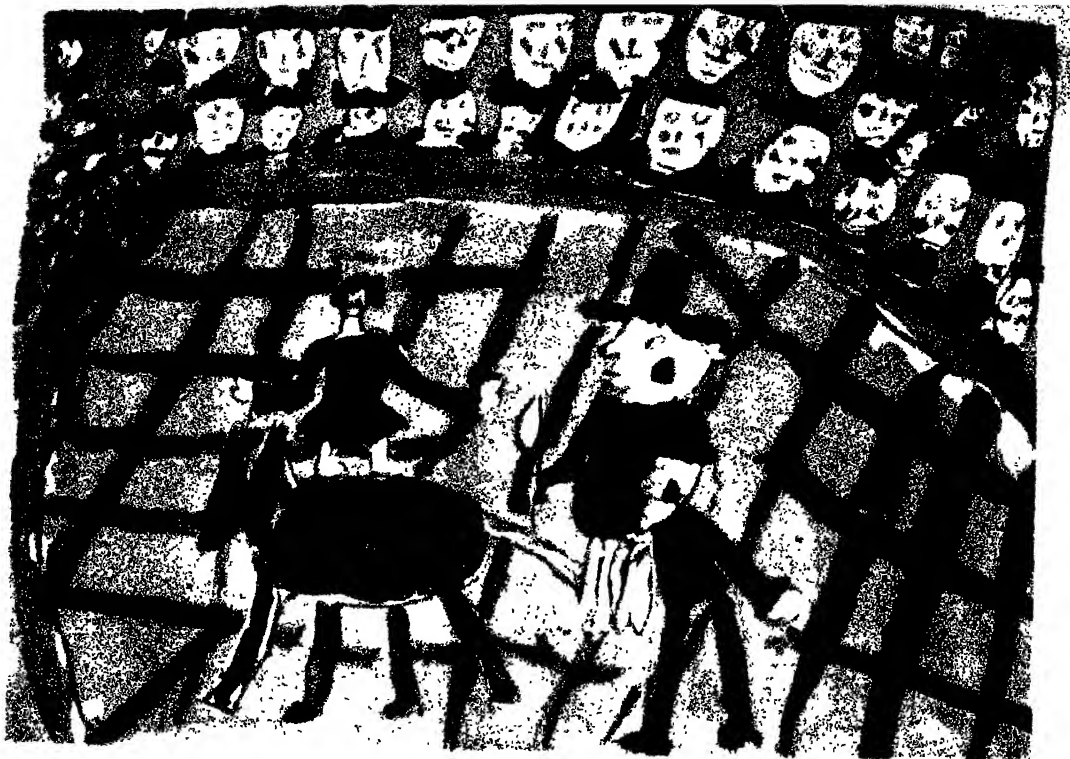
The girl who painted "*The Picnic*" obviously has considerable technical skill, but she is using it in a mistaken and artistically fruitless way. The mistake lies in her (probably unconscious) motive for painting it

She is trying to paint like a grown-up, and she copies the tricks which she sees in the inferior illustrations which are so frequently used in children's books. She gains nothing from having painted it except the approval of those who are artistically uneducated.

These fluffy trees, this brown path with its hard neat edges, this conventionally treated grass, are not from her own memories and mental pictures of the country, but result from tricks which she imitates from pictures; how to "do" grass, and so on. These dainty children in party frocks, this clean little boy whose name must be Percy, are sentimental adult conventions for children, imitated by a child.

The whole painting shows that the child has been led, by poor artistic education, into a false idea of art

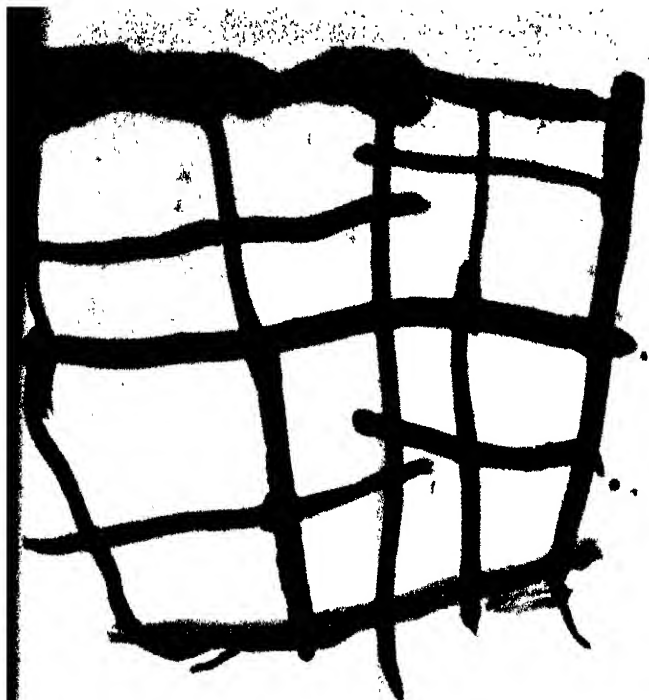
Compare Percy in this picture with George in "*The Gossips*". Here is a real boy. There is nothing false about this picture. The motive is the child's desire to express her own idea of her subject, and the painting shows no borrowed tricks, and no desire to appear clever. It shows, on the other hand, a strength and gusto, a



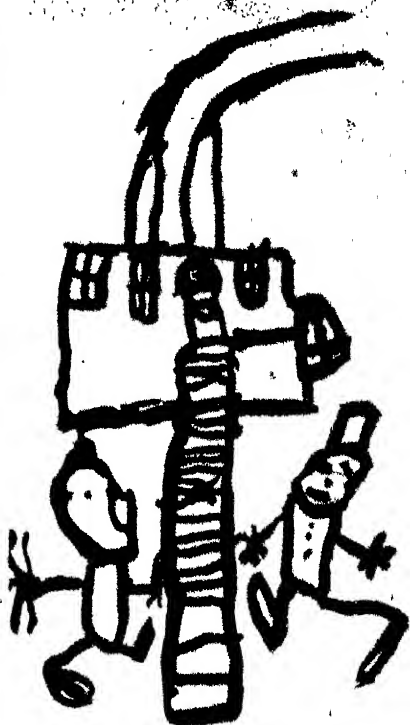
8. THE CIRCUS
(INSPIRED BY PROJECT WORK)



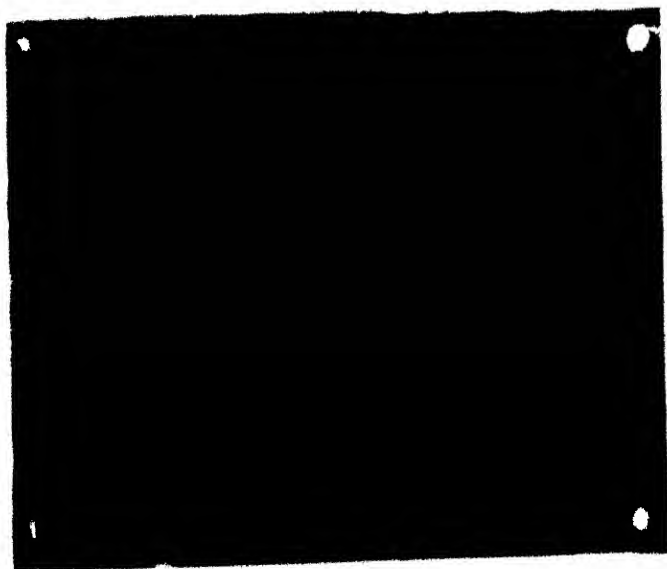
9. FLOWER SELLER



10. WINDOWS



12.



11. WINDOWS
(SHUT)



13.

relishing of life, which the other more "lady-like" picture lacks.

Notice the delight which has been taken in the varying greys of the bricks, in the colours and textures of the old clothes and the wrinkled faces. This child has achieved the outlook of a true artist, and the beauty of her picture is not the outcome of a "pretty" subject, but of her own vision.

Nos. 6 and 7, Paintings of Heads

These two paintings of heads illustrate the same differences as are shown in Nos. 4 and 5.

No. 6 is a "slick" imitation of painting of the vulgar, magazine-cover type. It follows the popular conventions which rule such things, the eyes are wider than the mouth, and so on. There is no attempt to express the nose because no trick had been learnt for "doing" noses.

Compare this with the honesty of No. 7. Notice the difference between the two ways of treating the eyes. A characteristic of the model who sat for No. 7 was a curious brownish colour round the eyes. The painter saw this, and was

not prevented from painting it because she already had a "recipe" for eyes.

Notice also the difference in texture between hair and skin, which is absent in No. 6.

In conclusion, both Nos. 5 and 7 have the beauty of colour, the inevitability and unity of arrangement, which arise, not from a conscious aim, but from the existence of a true aesthetic motive.

Nos. 4 and 6 lack these qualities, because the reasons for painting them were false and barren. Yet drawings of just this type are still encouraged and given prizes, even by people who consider themselves to be experts in the field of artistic education.

It is true, of course, that many children would choose Nos. 4 and 6 from these four pictures.

They would admire their likeness to the kind of pictures they see in books and advertisements, and which they know to be accepted by the majority of adults. This represents one of the major problems of the teacher of older children, and it will only disappear when the improvement in aesthetic education leads, as it must in time, to a general improvement of taste among adults.

ART AND HANDWRITING IN THE INFANT SCHOOL

A Description of the School

Before discussing art in the Infants' School, it will be helpful no doubt, to read a description of the Marlborough School in order to get a clear idea of the atmosphere and the place art plays in the curriculum.

The Marlborough Infant School is near Sloane Square, Chelsea, and until quite recently was surrounded by very poor dwelling houses which were squalid to the utmost. In the neighbouring roads, such as Cadogan Street, were large houses and expensive flats which catered for an entirely different population.

The District

The area of the poor district is diminishing fast, for these poor residences are gradually

being pulled down, and in their place large blocks of luxury flats are being erected. The district is fast becoming a second Mayfair. The families who inhabited these poor homes are obliged to go from the neighbourhood as there is nothing being built for them. Consequently, the school, which had a roll of well over four hundred, is now below two hundred. Most of the remaining children in the school live in blocks of Trust flats such as Guinness, Lewis, Sutton, and here, where overcrowding is present the people are under notice to go. These facts have had an unsettling influence upon the children and parents. The fact also, that they constantly see these wealthy neighbours and realize the impossibility of competing with them, seems to have dulled their ambition and given them a happy satisfied contentment, which makes them charming and delightful.

The Parents

Many of the parents are casually employed as lorry drivers, painters' or builders' labourers,

the end of the hall is my reception room which is prettily decorated with pale grey distemper above and a fresh, delicate green below. The colour scheme was chosen as a suitable back-



FIG. 1

Milk time at the Marlborough Infants' School

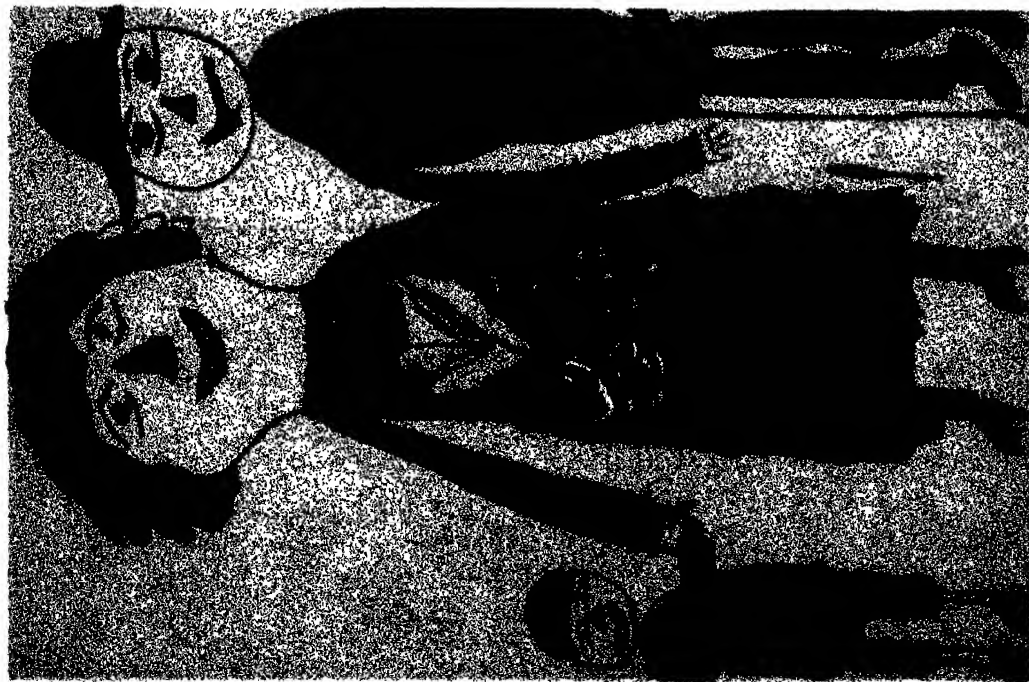
flower sellers, charwomen, both mother and father earning when and where they can. Some however serve in such places as Harrods stores, are chauffeurs or caretakers in the large houses and flats, and from new police flats we again get a better type of child. On the whole, however, the children compare favourably with those of other L.C.C. elementary schools

The School Building

The school building is large and old-fashioned. On entering the building one sees a large central hall with classrooms surrounding it. At

ground against which to hang children's drawings. The room is further brightened by hand-printed materials on cushions and chairs. It is opportune to mention at this point perhaps that all the curtains at the classroom, corridor and cloakroom doors are printed by the children, and patterns are designed on paper to make ugly corners pretty. The school is dark and bare, but with these works of art a bright and gay effect is produced. We are anxious to make everywhere as pretty and attractive as possible.

Many of the homes from which the children come are dull, sordid and untidy, and we want to brighten the outlook of these children and



14. MOTHER



15. KILLING WILD PIG
(INSPIRED BY THE FILM "LIVES OF A BENGAL LANCER")



16. MOTHER
(A GIVEN SUBJECT)

help them to realize that through their own work they can make unattractive spots look inviting. I would like to emphasize that this work was not introduced as a remedial measure. Although it cures an ill, it is also necessary for a healthy development of all children as will be shown later.

There are six classrooms, five of which surround the large hall and the sixth is tucked away down a long corridor. With the exception of one, the classrooms are large (old-fashioned sixty classrooms) and most of them get no sunshine as they face north.

The children who now number about two hundred are divided into six groups arranged largely according to age. Classes 5 and 6 have children ranging from three to five years of age, and are called the nursery classes. and classes 1, 2, 3 and 4 are made up of children between the ages of five to seven plus, and are arranged as near as possible in age groups.

The Aims of the School

1. To stimulate active inquiry in the school and the external world.
2. To provide opportunities for bodily and social development.
3. To stimulate the creative urge.

There are two essential viewpoints with regard to the environment and time spent in the school.

1. Every opportunity should be given for experimental activity.
2. Lessons, materials and apparatus should foster an intelligent interest in the three R's.

The Time Table

The time table is a fixed one only for such things as physical exercises, music and singing, speech work (much of this is also individual), lunch, play, arrival and departure. These times are fixed because either it is convenient to the running of the whole community, or, as in the case of music, it cannot be taken individually, since the rest of the class would suffer.

The Under-fives

The Nursery stage (children of three and four years of age) is an introduction to school

life. We hope that the days are not far distant when these children will be accommodated in a Nursery department of the Infant School; in which the children can be gently led into the life of the school, with easy coming and going. This life is full of new experiences and the children should not be jarred, jolted and rushed into them. The child begins to learn to live with other children and yet must be allowed to remain an individual for this very individualistic stage of his life.

After registration and the taking of milk money, the two classroom doors are opened and the children are allowed to be in the hall or in the classroom for the first hour of the day. The large hall space is used for big toys such as: tricar, carts, engines, prams, balls, wheelbarrows, etc. In the room there is a sand trolley, water trough, bricks; materials for home activities, such as brooms, dusters, irons, wash tubs, polishing rags, etc., bead threading, colour, picture, size, shape matching material, doll's beds, dressers, houses, and art material.

Children are free to choose what they wish to do, but there is one rule, and that is, that if a new activity is chosen the material from the first must be put away before the new material is taken.

Lunch

After this hour the material is put away by the children and preparation for lunch takes place. First, all hands are washed. Each child has his own towel, but basins are shared. After washing and emptying the water the children comb their hair, each child having a different comb (usually distinguished by colour). The ones who are finished first lay the tables for the others. Naturally the teacher lets them take turns. They lay the cloth, put on a vase of flowers, arrange the plates and when all are seated two are chosen to take round the milk and two the biscuits.

After lunch, which is always conducted in a quiet and orderly manner, two children are chosen to wash up, and all clean their teeth. This personal hygiene is taken to supplement the training of the home which in many cases is very scanty. The novelty of brushing teeth is

a real thrill to most as is also the viewing of themselves in the mirrors. The rest of the morning is devoted to music, talks, games in playground and dressing.

The children rest in the afternoon on beds provided by the Council. The children take off their shoes, blinds are lowered, and everything made conducive to sleep.

The Over-fives

When the children leave the Nursery classes the time table is the same for the first part of the day, that is for the first hour the children are free. The material in the room and the opportunities outside the classroom are different. In the room all sorts of raw material are put about, such as boxes, cardboard, wood, string, scissors, paper, corks, bottles, etc., a box full of "dressing up" clothes and a painting corner with all sorts of art material to hand.

If the child wishes to be out of the classroom he has several places from which to choose. In a cloakroom there is a carpenters' bench, with tools, nails and wood for his use, in the hall there is a library containing over two hundred books and a puzzle corner, that is a cupboard containing all sorts of puzzles such as mosaics, jig-saws, manikins, hexa-tiles, etc.

The Tools of Knowledge

At the age of five, five and a half, or six the desire to acquire the tools of knowledge such as reading, writing, number work, becomes a dominating interest to the child. The stimulation comes from various sources, home, older

brothers and sisters, teachers and the active inquiry of the child's own mind. As soon as this desire is felt the teacher supplies the means to satisfy, and once the child has begun the self-imposed task of learning to read, he is expected to work a little at it each day.

As he gets older his capabilities strengthen, and so his tasks are lengthened. Children of seven usually complete their tasks as soon as they come to school in the morning, and when their assignment is finished they can be free. If the teacher wishes to take a class lesson such as physical training, or a group lesson with some common difficulty or new step, and the child is out of the room (in the library for instance) she will naturally send for him, and it is usually found that he is ready to obey. As the child reaches the top of the Infants' School his free time in the morning is very much less than that of the younger ones, with the exception of the really clever children of whom we have a small percentage.

Freedom and Activity

The freedom of choice holds good in the afternoon after a collective lesson in speech or poetry. I am anxious for the reader to get the feeling of movement, of activity, of freedom of choice, of children being on their own or in little groups (of varying ages), working out their own fantasies without specific adult supervision.

It will be realized from the above that art work is often chosen in free periods during the morning as well as in the afternoon. The child knows exactly where everything is kept, and if it is not on view he is allowed to help himself.

THE MEANING AND PLACE OF ART IN THE SCHOOL

Art and Life

Art and life are inseparable, one intermingles with the other and each springs from the very heart of our being.

Art brings joy, pleasure and beauty to every human being, it raises humanity above the realities of everyday existence, it is the release

for spiritual forces, it is the perfection of all activities of the human soul.

The small child's spirit presents the eternal rhythm of beauty in life and it should be allowed to unfold as a bud, imparting its purity and inherent beauty without being hampered by standards and ideas of life enforced upon him by adults. Art is as necessary to the child as



17. JAZZ BAND
(A CHILD'S OWN CHOICE)



18. DOLLS' WASH DAY
(A GIVEN SUBJECT)



19. FATHER IN THE BATHROOM



20. AN ARCH OF ROSES
(INSPIRED BY POETRY LESSON)

speech to an adult and it is implanted in his soul.

The Defective Art Education of the Past

It is amazing to realize that the life of an individual passes, the life of a civilization passes, but the art lives on through the centuries of time. Our knowledge of past races, of civilizations that have disappeared, is gathered almost entirely from the fragmentary relics of their art, and yet, in spite of this, until recently art was an extra in the curriculum of the school, and was considered as "jam" to those who could afford to pay. Most of those who were "lucky" enough to be taught this subject have memories of cubes, cones and unvaried reiteration of the terms "perspective," and "light and shade." In the Infants' School we gave the child small paper (usually dark), thin pencils, pastels and small dabs of paint on palettes, and this paint was usually reserved for the top class only.

We realized that children loved to draw but with what lack of imagination did we satisfy these needs! We did not think that the child had inherent ability and natural skill but believed that he needed guidance with every stroke of his pencil or brush. We felt too, that he needed an object from which to draw, and often provided a little flower.

The Modern View

Psychologists had not impressed upon us sufficiently that a small child while drawing is unfolding to us what he knows and not transferring to paper what he sees, and that his imagination is alive with vivid pictures.

Dr Susan Isaacs says, in her book, *Intellectual Growth of Young Children*, "Educators have latterly come to see that children's bodily development is better served by free movement in running, jumping, climbing and shouting and by dance rhythms based upon the natural movements of the body than by systematic fixed exercises of the old military type. They have found that aesthetic development is better encouraged by free creative work

upon the lines of the child's spontaneous expression in colour, form, rhythm and miming than by set lessons, in, for example 'model drawing.'"

The syllabus that took no notice of the natural instincts of the child was clearly not the most suitable for general education and modern ideas. It must be recognized that drawing is to children as natural as speaking and that the impulse to create is there, and is guided by inborn talent. The attempt to teach a child to draw by rules and formulae is to substitute something else for what is there and so to check the growth of a child's mind.

Art is not Mere Representation

It must be realized that art is not just representation, it is not the literal record of what the eye can see. If it were, then surely a photograph would be a true work of art. Yet a photograph can never make a claim to this title because the camera can only produce what the eye can see. Tolstoy says, "Art does not necessarily imply imitation of nature. The forms of nature result from, and are controlled by, natural law. The forms of art draw their vitality from and are controlled by, the life of the mind. The artist who merely copies the appearances of objects and scenes has failed to communicate any experience of reality he may have had."

The Child's Point of View

The laws of nature are independent of the laws of art. It is difficult for us to assess works of art, but our feeling rather than reason must be the judge. In looking at a child's drawing, we must remember always that it is the work of a child. We must know his age and realize that his experiences in life have been far fewer than those of the adult and that his outlook and viewpoint are different. This does not mean that the small child's drawing is not worthy of regard. Instead it will help us to regain a simplicity of outlook, and reteach the truths and sincerities of life that so often have been forgotten.

INTRODUCTION TO ART WORK AND ITS EXPERIMENTAL STAGES IN 1932

The Beginning

We have been fortunate in having the guiding hand of Miss Marion Richardson who introduced art work as we now understand it to the Marlborough School about five years ago.

At first it was introduced to one class only, a class of children whose ages were between six to six and a half years.

Up to this time the children had been accustomed to small papers (these were usually brown or grey as pastels were more extensively used than paint), pencils with which to draw, pastels for colouring or, at the top of the school, small paint boxes containing six colours.

Now came the change. We were anxious to try the newer methods in the teaching of art, but the growth was slow. At first we had not the right material and for those of you who read this and wish to start the work, but are handicapped by lack of material and money, these next few pages will, it is hoped, be helpful.

Materials

We gave the children kitchen paper as then supplied. This paper differed from that which we now use, being of a very thin texture with one side smooth and the other side rough. The paper was folded in half for the purpose of making a firmer working basis. Charcoal was given for drawing and poster paint for colouring. The paint was mixed with water and put into small water bottles or meat and fish paste jars. These water bottles containing the paint, were arranged in sand trays (about five on each) and a brush put in each colour. The supply of brushes was very limited and so those from the other classes were borrowed for the lesson. One sand tray of paint had to be shared among four to seven children.

Arrangement of Room

When the paper was given out it was soon seen that the desks were overcrowded. The papers in fact, overlapped and the surface of the desk was not large enough to support the whole paper. Wherever possible, children were arranged one

in a desk. The blackboard was put on the floor against the wall and the paper of two children pinned to it. Blackboards were brought in from other classrooms and used in a similar way.

Large sheets of strawboard (24 in by 30 in.) were put against the wall or propped up on desks, and chairs, and papers clipped to them. The top of the teacher's table was used for one child and strawboard rested in an almost upright position against the legs. Several large pieces of cardboard were found for use in later lessons, also large obsolete pictures and large printed advertisements mounted on stout cardboard. It will be realized that in the end every child's paper was free from the next child's.

The room looked extremely full under these conditions but it gave the freedom of movement for the arms, and control over the whole area of the paper.

The Size of the Drawing

It was noticed that large paper had not inspired large drawing, possibly because of the smallness of the paper to which the child had been accustomed. Because of this it was felt, that, to give a subject both large and simple would possibly help the child to a fuller understanding of his new material.

The subject suggested was "MOTHER." Her head was to touch the top of the paper and her feet to touch the bottom. Perhaps on first thoughts the adult might be inclined to think of this subject as being one full of difficulties, such as the human figure, feet, face, etc., but the little child is not daunted by such fears. He has been accustomed to drawing "A man" or "A lady" from his extreme youth, and "Mother" is the most important "lady" to him and therefore the most interesting. The child is not concerned with realistic representation, so the idea of not being able to portray a life-like impression does not bother him. He uses a symbolized form for the human figure and decorates it according to the person it represents. He sets to work with tremendous pleasure and excitement at the idea of producing something so wonderful as mother upon paper. (Ex. 14, by child of 6½ years).



A.



B.



C.

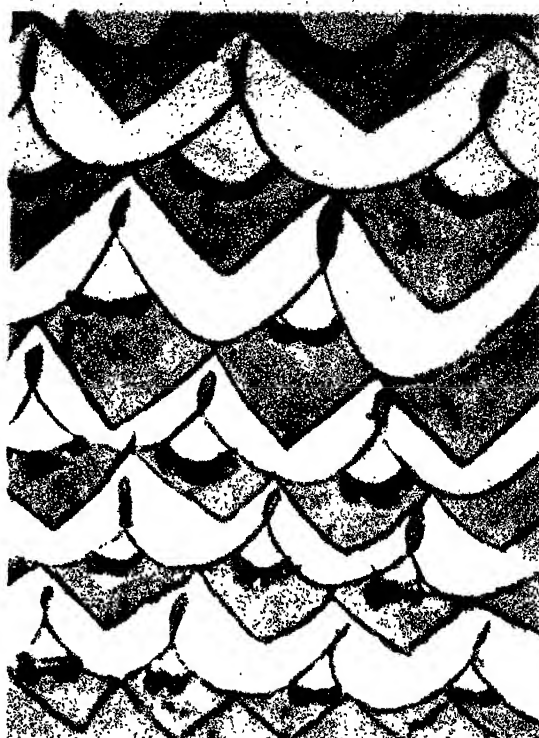
EXAMPLES OF CHILDREN'S
DESIGNS AND PATTERNS



D.



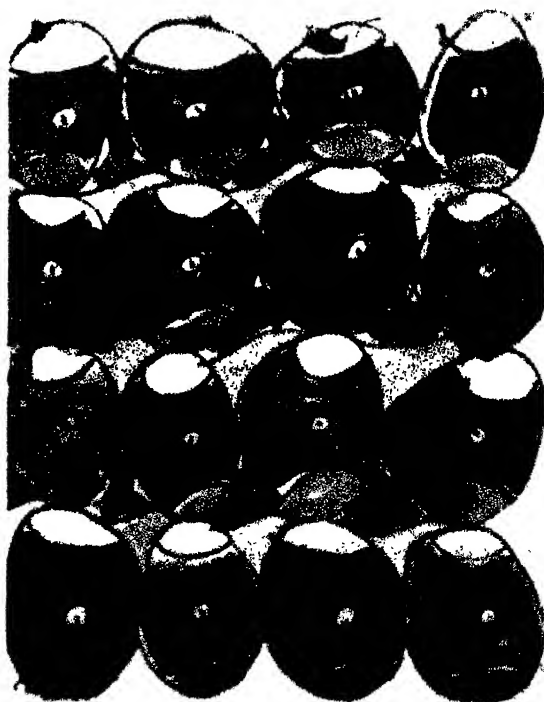
E.



F.



G.



H.

EXAMPLES OF CHILDREN'S
DESIGNS AND PATTERNS

How Large Drawings Were Secured

The joy from this lesson was great. Many of the children drew, at first, small people or a mother in one corner, but after being invited to walk round to see the work of others, fresh attempts were made and "mother" in most cases became a very presentable being. Most of the children used every paint possible for colouring the picture, while a few used one colour only for all parts. In no case was there a background.

Class Discussion

After the lesson, pictures were selected and children were asked why they were good. The discussion was really influenced by the teacher, because she wished to impress upon the children certain points. For instance, she might say:—

"I like this one because her eyes can see so well

"I like this one because she has such lovely curly hair.

"I like this one because she is standing so firmly on the ground

"I like this one because her dress is such a nice length "

What was Learnt from these Early Attempts

From the first lessons we learned many things, and below are points that should prove helpful and show why the recommended modern material is better for the child.

1. Every conceivable space must be used for the children. They must have full control over the large surface of their paper. The use of the whole arm movements rather than those of the wrist gives much more rhythmic freedom, producing a bold and firm line. It did not seem to matter whether the child stood, sat, knelt or lay on the floor, so long as he had space.

2. Wall space is exceedingly useful. Because of this we bought large sheets of 3- and 5-ply wood and slip-on clips for the paper. Through experience we have found that 5-ply wood is much better, as it is stouter than 3-ply, which is inclined to curl and bend and therefore not give a flat surface.

3. Many brushes were needed. That stiffer brushes, such as hog hair, would be more easy to manipulate and would hold the paint better. At the suggestion of Miss Richardson, we bought several long-handled hog hair brushes from oil colourmen. There is now an excellent hog fitch in varying sizes supplied by most artists' colourmen. (See materials suggested at end.)

4. Poster paint is extremely expensive to use. It was realized at the same time that a thick opaque paint was far better than a thin washy one.

Miss Richardson suggested that we bought powder colour from oil colourmen or decorators and mixed it with yolk of egg. This powder can be bought by the ounce, and varies in price according to colour and the fineness of the grinding. It is very cheap and extremely nice to use. For those who would like to try this paint the following instructions will be found useful.

Make a small heap of powder on a palette (if a palette is not available, a sheet of plate glass or the bottom of a tin tray can be used. A firm smooth surface is required). Make a hole in the centre of the heap and pour two or three drops of YOLK of egg mixed with an equal quantity of water into it. Mix the surrounding powder (a little at a time) into a smooth paste with a palette knife or a very old flexible table knife. When mixed add a few more drops of egg and mix again, gradually using more powder. As this becomes the consistency of thick cream add more egg and continue the process until all the powder has been worked in thoroughly so that the ultimate result is like a smooth cream. This paste can now be stored in screw-topped bottles, ready for mixing with water to required density. A few drops of white vinegar will help to preserve the egg. Do not be alarmed if the paint smells after it has been stored. The painting properties are just as good, and after it has been used and has dried on the paper the smell will go.

It might be added here that cheap eggs will answer the purpose. If this method is used it is economical to preserve eggs in water glass while they are cheap.

Gum arabic can be used in the same way and will serve equally well. The recipe for mixing

gum arabic is given later on. It is always necessary to mix the powder colour with some sticky vehicle in order to enable the powder to adhere to the paper

During these first days and months of experiment, we let a group of children mix sufficient paint for the whole school for the week

This, however, proved too strenuous a task, and to my mind too monotonous for little children. Many of them were always ready to "mix paint" and loved playing with the beautiful, colourful powder

Because of the impossibility of this paint mixing in the Infants' Schools, Miss Richardson set the large firms to work to find a medium that could be added to the powder while dry, so that to mix the powder with water would be the teachers' only task. Hence the present tempera paints

5. More than the given range of colours in paint were needed

6. Individual help was called for rather than class statements

Lesson 2

The classroom was prepared, and the corridor was also used to give more space. Papers were pinned on the sheets of 3-ply wood, and also upon the strawboard, i.e. thick cardboard

Again the subject was given. It was "people shopping at stalls." In Draycott Avenue there is a line of food stalls and the children were therefore familiar with them. It was found that the children did not know how to use their paper. Objects were drawn here and there with little correlation or planning. Large spaces were left, making the composition of the picture extremely poor. Every colour was again used and the joy of the children was derived from the material and motor activity, rather than from the subject given

An Unsuccessful Lesson

The lesson was not a real success from the point of view of art or power of expression of the child. It was realized that there had not been sufficient use of the material and that the children were needing to experiment with it much

more. The following week the material was put about in the room, and if the child so desired he could choose to paint and draw during handwork lessons

Looking at the results of the work it was easily realized that the child's mind was chaotic from the point of view of time and space. His imagery was extremely vivid but the placing of things upon the paper was not orderly. It was decided therefore to describe a picture in detail before the next lesson and then ask the children to paint it

A Picture Story

The picture described was this—

A mother (dressed in a red coat and a yellow hat) with her little girl (wearing a yellow coat and a red hat) were about to cross the road by a Belisha Beacon, when a man passed by wheeling a barrow filled with flowers. (Ex. 9)

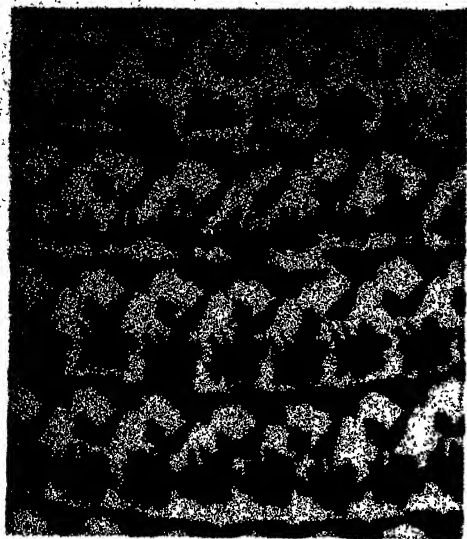
The barrow looked beautiful because it contained flowers of many colours. It was so bright and gay that mother, her little girl and a boy, dressed in a brown suit (who was passing at the time) stopped to gaze at the lovely sight.

The little girl asked her mother to buy a bunch and said she would like to carry it in the brown basket that she was holding, but we do not know whether this happened, because our picture shows only the flower seller passing by and the people watching from the pavement

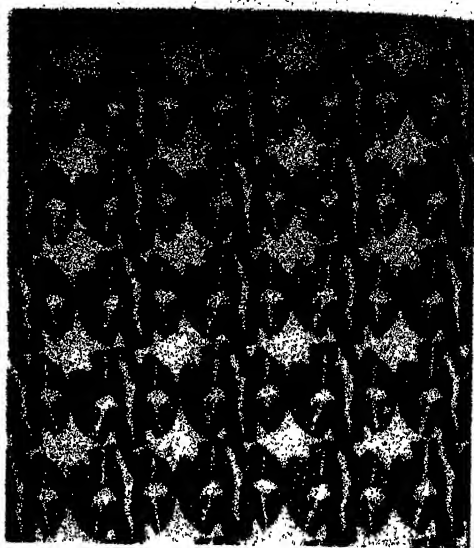
This description was given to the children as a story might be. The children then set to work to draw and paint it. Some items were omitted by some children and many muddled or forgot the colourings. The pictures were very much better from the aesthetic point of view. The children had drawn a picture to fill the paper, the composition and colour was good and a single idea of space and time had been depicted.

The Value of the Method

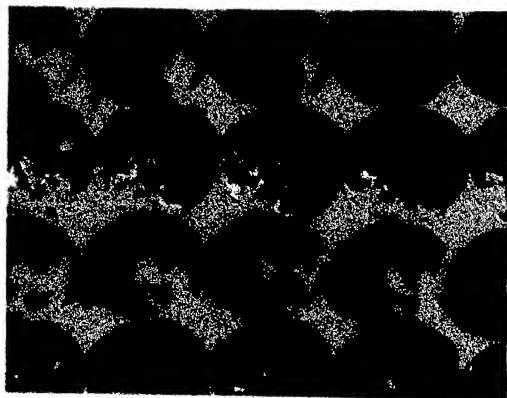
We have since found that the method of describing a picture has been extremely valuable to help the child to visualize his mind picture on the paper with good design and unit of time. The picture shows what can be seen at a given moment and not a serial. It must be



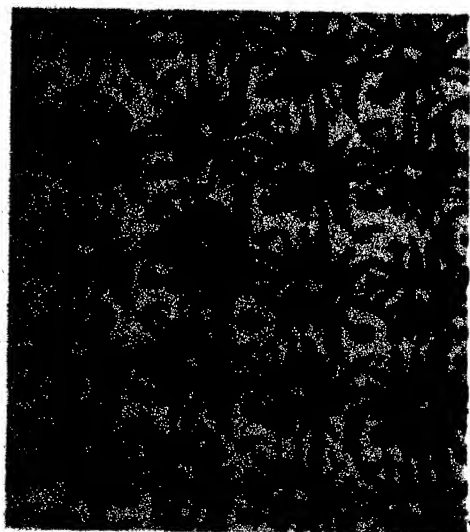
I.



J.



K.



L.



M.

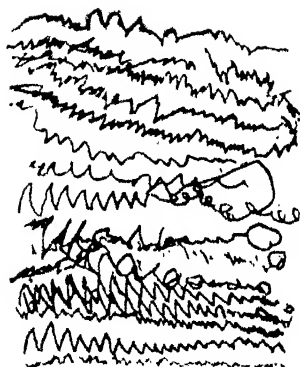
FURTHER EXAMPLES OF
CHILDREN'S DESIGNS AND PATTERNS



N.

mmmmmm
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BBBBBBB
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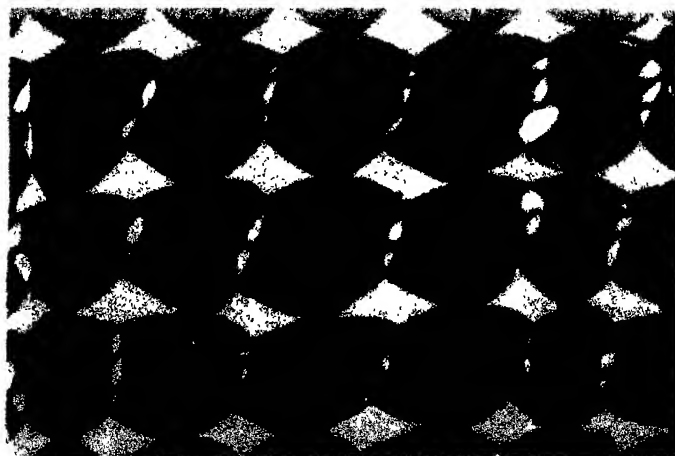
O.



P.

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Q.



R.

FURTHER EXAMPLES OF
CHILDREN'S DESIGNS AND PATTERNS

remembered that a picture is a design of things, and unless the things in the picture correlate and balance with one another, the picture itself, however well drawn its parts may be, cannot be good.

Before attempting to describe a picture to a class of children, the teacher must have a mental picture of what she is going to describe in her own mind. It must be real and alive to her as a story would be. It is a good plan to make a tiny rough sketch of the picture beforehand, in order to see how it will fit in to the square or oblong paper to be used.

One might criticize this method and say that attempts are made to obtain adult standards of composition from a small child. But this is not the case. Help is being given to the child to set down his crowded thoughts on paper, in a simple, methodical way. This idea however should be

used sparingly; indeed some children never need it at all.

The Method Spreads

The new approach to the teaching of art was infectious in the school, and the older children in the department began in the same way. Very much painting and drawing was done.

Because of the need for space and material we turned an empty classroom into an art room. All surplus furniture was taken out and art material taken in. The room was left ready and each class had at least one long period in it a week. Unfortunately, however, after this had been in full working order for about six months, the room was taken to make a new woodwork manual for the boys' school, and so our art room had to go.

DESIGNING

Designing was now introduced by means of running rhythms and unit variation and repetition. The running rhythms will be dealt with under the heading of Cursive Writing, and so for the moment, that approach will be left and the other side concentrated upon.

The children were given the same sized paper and were shown how to fold it in order to make sixteen "houses." In the first "house" any sort of line was drawn to touch the sides, and then was embroidered. The first line could be straight or curly as also the embroidery. This "design" was repeated in all the "houses" and when completed the child was allowed to choose two colours and to paint his pattern.

It is well to say here, perhaps, that to limit the child with colour in his first lessons in designing is a wise step because, if the child has free access to all colours, he will possibly want to use many, and in so doing will lose the repetition of colour which is necessary to design. The child does not resent this limitation, especially if he has had plenty of opportunity for experimenting with many colours at other times.

A child is often helped by the suggestion that he should paint all the blue shapes first (if he has

chosen blue) and then all the yellow. It will also help him to realize what an important part shape plays in design, and he will begin to look for the shape he has made and not the line he has drawn.

Alternate repetition of a unit was also taken, and patterns in long lines. More details of these methods will be given later. It will suffice for the moment to say that designing was introduced through these channels, and the children produced very happy results.

Introduction to the Five-year-olds

It has been mentioned that we realized that the child needed free use of material before the age of six and so during those early days we gave the five-year-olds opportunity to use art materials whenever they felt the desire to express themselves through those mediums. Large pieces of paper (including wall-paper) were pinned on wall blackboards and material such as charcoal, pencils, crayons, paints, and brushes were always out for use. The child used the paper when and how he wished, and as it

was filled, fresh paper was pinned up. No adult help was given to these children at all.

Stages of Progress

It was learned that the motor activity and the production of colour upon paper was of primary importance to the child. He ignored the pencils and charcoal at first, and the crayons were unpopular with many; and we noticed that many of the children went through definite stages.

1. He chose a brush and usually red or blue paint, drew something with the brush and then covered the whole page with paint (Ex. 10 and 11, by child aged 3½ years.)

2. He seemed to pass from this stage in a few weeks, although we kept no record of any one child, and can only give these stages as very general data. His next step was to draw with his brush as at first but to leave it untouched; he would possibly draw a man, a dog, an elephant, a chair or letters such as "E" or "N," perhaps two objects, but if the latter, more often than not without relation to one another.

3. The next stage we noticed was either, to draw in pencil and then colour this outline, or to draw an outline in one colour and then colour the shape in another (Ex. 13.)

4. To draw more than one subject with connected thought. For instance, a house with furniture, and in all probability the furniture would be drawn outside the house.

5. A complete picture, such as, a man with his dog, a girl playing with her ball, or a house on fire.

6. From the former stage backgrounds such

as the sky, a field, trees began to appear. The sky and ground were usually indicated in strips.

What was Learnt from this Experiment

Now it must be realized that these children had never had paint before in the school and probably never in the home, and so when the material was first given to them they passed through all the stages of maturation to the age of five with great rapidity. We have now discovered that stages 1, 2, and 3 belong roughly to children of the age of three and four, and stage 5 to the five and six-year-old child. It must not be taken for granted however that there is any hard and fast rule about these stages but that although they are enumerated above they were only general tendencies.

We learned, too, that the child repeated the same shape and lines that he drew from the beginning, but with increasing mastery of control. He was in fact learning to draw through drawing and should therefore be given every opportunity to draw, and this at an earlier age than five years.

The child showed too, that his drawing was a gradual unfolding of his thoughts, experiences and knowledge, that through his drawings he could impart more than he could say, that it was a means of expression, very alive and full of activity, however, incomplete.

Children in the school are now allowed to draw and paint as soon as they come to school, i.e. from the age of three. Materials are always handy and ready for use.

CURSIVE WRITING

Four years ago we introduced Miss Marion Richardson's method of cursive writing to one class of children five and a half years of age

very easy for the child to learn) being somewhat like the printed book must necessarily help the teaching of reading.

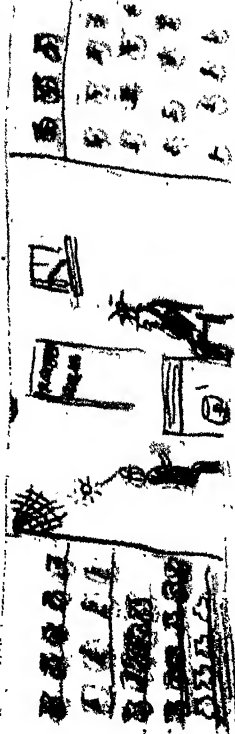
False Fears

We were very apprehensive of the effects on the reading, as we had been brought up to believe that "script writing" (and that was

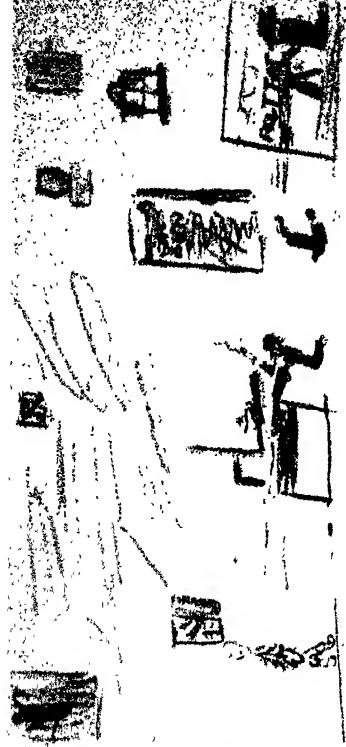
How We Started

We started by letting the child draw zig-zag lines across the paper with coloured chalk (encouraging a continuous movement, i.e. not

THE END OF THE ROAD



One day some robbers were counting some notes in a mysterious house when the head of noise so they kept still for a minute then something appeared it was a skeleton it was coming towards them and they wondered what to do then he got an idea so they got



out revolvers and shot bullets at him and got him down but the police heard these shots and caught them and were put in jail

THE END





on the wizard door and put
if you are going to be friends
with us well you put a wile
flag then they ran out the
town and when the wizard
came home he saw the N.Y.
he left and said Hay presto
Hay presto to be sure he said
and then he put a wile flag
out and when Ordyce saw

the wile flag he ran in and -
knocking the wizard over and
Ordyce said lets have something
to Eat so they all had it and
when they had finicht they
said to the wizard you have
got the ping pong tong means



lifting the crayon) and showed him the block capitals that were derived from that movement. He practised this rhythm on millboards, blackboards and large papers. He was then shown how to make patterns with this rhythm by joining, overlapping, making large and small movements, etc., and was encouraged to make variations upon these ideas (see Ex. O and Q, by children of 5½ years)

This rhythm and pattern-making was practised each day, and the following week a new rhythm was shown.

Different rhythms were shown in this way each week in order to introduce the block capitals, and much practice was done for writing by making running patterns. These can all be found fully described in *Writing and Writing Patterns* by Miss M. Richardson, published by the University of London Press, price 5s. There are five books to the set, and a teacher's book which fully describes the method and contains many illustrations of children's work.

The Experiment Extends

In two or three months we introduced writing to the next lower class. Having gained much through our previous experience we were able

to reduce the daily collective lesson to two or three lessons a week. Now that the teachers and children are more aware of the method, a collective writing lesson is rarely taken. The material described above is in the room and children help themselves, drawing these rhythms, letters and patterns when they choose.

The Effect on Reading

It is interesting to note that when these children were tested for reading at the end of their Infant School career they were equal to those who had gone before, and their writing was good, swift and easy. It is interesting to note too that if a child could read a word, it did not matter whether it was in block capitals, script, print or cursive writing; the style seemed to present no difficulty. A child is not so critical of detail as we adults are and sees rather the general pattern of the word.

With this knowledge we adopted the method for the whole school. We have naturally learned much from these early days. The method is now fully worked out and suitable apparatus has been devised (See books). When we started, the apparatus was of an experimental nature and was altered from month to month.

POTATO PRINTING

A Form of Handicraft

Potato printing was not introduced until three years ago and then to the top class only. It is usually taken now only with the seven-year-olds, as care, precision and control are needed for this work. A younger child should not be expected to do things neatly, otherwise his natural creative impulse will be checked and he will become stereotyped and lethargic and will lose his spirit of experimentation.

As potato printing had never been seen in the school before, we introduced the work through easy stages. Before these are enumerated, however, it will be helpful no doubt if the reason for teaching this at all is given.

We cannot say in the Infant School that we

are teaching a craft to the child specifically, but we are laying the foundation for the Junior and Senior School, and should therefore know something of the value of craft work in education.

A Mode of Teaching Design

Potato printing is another method of teaching design, and design enters so largely into everything that if a child can understand the elements of good design a richer life is enjoyed.

It has been said before that the child has the instinct to create. To encourage this instinct is one of the aims of craft teaching. To appreciate the appropriate design is another aim. In pursuing craft work a child gains a means of

expression that through life can give him joy, a love for beauty and harmony that can raise him spiritually above the artificialities of everyday existence. One has only to go into a classroom when a lesson in some craft is taking place to realize the absorbing interest and real pleasure that it gives. One can see how planning towards an end, reasoning with definite purpose, observation because of interest, imagination with experimentation are all brought into play.

The Social Value of Teaching Design

Apart from the aesthetic and educational point of view we must be aware of the fact that the child of to-day is the consumer, producer and designer of to-morrow. If more of this teaching were to be done perhaps we should begin to lose the gaudy, garish, showy designs of so many materials, the monstrosities of furniture, china etc., etc. The manufacturer will naturally produce what the public demands. He is not concerned, unfortunately, as to whether it is beautiful but as to whether it is what the public will buy.

How We Began

The first potato printing lesson in the Marlborough School was taken using half of a potato for each child, kitchen paper and paint. It was demonstrated to the class that by printing with the potato, making each print touch the other, a design was made. The class then tried to do the same, making each print touch the next and the underneath one touch the top. In so doing an enclosed white shape was made as well as a dark shape made by the potato. (Ex. K.)

The Second Lesson in Potato Printing

In the second lesson the child was shown how to cut pieces out of the edge of his potato and thus make something quite pretty. The cuts naturally differed and the ultimate results were very varied. Those who had printed well were shown how to insert a smaller block in the white spaces with a different colour.

The Third Lesson

A third lesson was given using two blocks. For one block a potato was used and for the other a carrot. The children were shown that they could cut curly pieces and straight pieces out of the block and so make patterns on the middle surface of it.

The Cutting Tools Used

Up to the present blunt knives had been used and borrowed from one another as there were not enough to go round, but the enthusiasm now was so great that the children grew impatient of waiting and one suggested that he could cut with scissors. Scissors were at once given to the waiting children and from then onwards we have used them as a cutting tool as well as old blunt penknives. Some children show preference for one tool and some for another. An inverted pen-knife stuck in a holder may also be used.

Progress

After a few lessons the children began to print well. We then gave them a practice paper to try out their block and then a piece of material on which to print. It was not long before definite use was made of these materials, e.g. bags for knitting were made, little dolls' dresses, covers for books, etc.

As the children became more acquainted with this side of designing we introduced aniline dyes and powder inks for the printing and found them far more successful than paint. The only disadvantage in using these dyes is that the children can stain their hands badly (although the stain will wash off), but if their first lessons are taken with paint this disadvantage will not arise.

The children at first were very slow, enjoying the new medium and new method of design, and it was not until several months had passed that we established a habit of speedy, rhythmical printing.

As the children began to print quickly we gave them larger material upon which to work and now they print all the door curtains.

ART TO-DAY IN THE SCHOOL, 1937

From the foregoing it can be seen that the present method of art training is the result of several years work, with *unfolding ideas*, methods of approach, knowledge and materials. It will be seen, too, that all the branches of art were not introduced at once, neither was it introduced throughout the school at one period for various reasons such as lack of material, knowledge, etc. Now every class room has material and every teacher approaches art work through modern ideas. None has had special training and the examples given here are taken from each class and are not the work of one teacher.

MATERIALS

Brushes

Each teacher possesses from forty to fifty brushes which is an ample supply unless she wishes to take a collective lesson, and then she can always borrow. The brushes are round, hog hair fitches and are mostly size 6, 7 or 8, but a few larger brushes will be kept, perhaps size 9, 10 or 11, and also one or two soft camel hair brushes for smaller work.

These brushes are kept in jars with the hairs uppermost. This position allows the brush to dry after washing, and the hairs remain straight. Once the brush has been used during the lesson it remains in the pot with the paint, this is an economy in paint and avoids the other brushes becoming coloured. Naturally however if the brush is a large one and the next child who comes to use the colour needs a small one, he is allowed to take a clean one, and at the end there will be two brushes in the same pot.

Brushes should be washed well after each time they are used. A good swishing round in several clean cold waters should suffice, they then need shaking in order to get as much surplus water off as possible, and then planting in their tin or jar ready for the next day. There is no need to dry them.

Paint

The paint used is the powder tempera which has a medium already mixed with it so that all

that is necessary is to add the required quantity of powder to water and then stir. The powder is kept in glass containers which are always on view in the classroom. The colours are most attractive and make a bright, cheerful display.

It is advisable to keep the liquid paint in the air and not shut away in a cupboard as the medium in the powder has an unpleasant odour if shut away from the air. We tip the powder into the water pot from which the child will paint, add water and then stir until smooth. Some teachers mix their colours in jars and then pour them into the water pots and so usually have a supply mixed if the water pots become empty during the lesson. The organization of this is really a personal matter for the teacher. The water pots (arranged in colours) are kept in wire trays. One wire tray will hold thirty pots, but the number varies according to the price of the tray.

Mixing Colours

In the top class there are palettes, saucers or small jars such as paste jars, brought from home, and spoons, so that the child who, not finding the colour he wants, can mix and experiment with those already there. Many weird and wonderful colours are mixed and the children become most selective in taste. The joy of mixing and the thrill of seeing new colours arrive is a great game. He can test the colour on odd paper kept for the purpose. Water is also kept near so that paint may be diluted if necessary.

The paint in the water pots may become dry during the week-end, but if a little water is added and a stir given, the paint will be once again usable. There is no need whatever to wash the pots except at the end of term, or unless a colour has become muddy, which will happen if the brushes are not properly washed. If this happens it will be seen that the bright, live character of the paint will have gone, and then the only way to freshen it will be to wash out the old paint thoroughly.

Paper

The paper we use is what is called kitchen paper or baker's wrapping. It is thin and has a slightly rough surface; in colour it is not quite white and has almost a parchment look.

The paper (20 in. \times 30 in.) is used double. The added thickness makes a much firmer surface upon which to work. On first thought this might sound extremely extravagant but this is not the case, because if a good quality kitchen paper is used the four sides of it can be utilized, as the paint does not penetrate.

Sugar paper we use also but not to the same extent, as it is much more expensive. It is excellent for picture drawing and painting

Crayons and Pencils

All sorts of crayons and pencils have been tried but we find that the most satisfactory is a waterproof marking crayon such as Freart Crayon made by the Cosmic Crayon Co. There are other makes of these crayons, the Venus Pencil Co., for instance. These are fat and easy to hold, they make a firm, clear line which does not smudge or run into the wet paint, as they are slightly oily in nature, and so the original line of the drawing is unimpaired.

There is however, a wide choice of drawing mediums from which to select, such as charcoal, thick black demonstration chalk or thick black pencils. Some children have a definite preference for one particular drawing medium.

Freedom and Ample Space

It has been emphasized before that as much freedom and space as possible must be given to the child. The original 5-ply boards are still used regularly, and they have the advantage of packing away into a small space. Some easels are invaluable in a classroom. These should be made of a light wood in order that the child can move them about himself. They should also be made in such a way that they take as little space as possible when packed away. Paper clips are used in both cases instead of drawing pins, as the latter are much more difficult for the child to use. The upright position seems to be the

most suitable for picture drawing as the children can stand back and see their work as a whole.

The teacher who has not tried working with a large class on these lines will be surprised how quickly the children adapt themselves to crowded conditions and what must first appear to the teacher, a real muddle. Unsuitable surroundings and material can be cramping to the imagination.

During the summer period the class can sometimes be transferred to the playground. Here there is ample wall space and the fresh air and sunshine help to dry the paint, besides being extremely beneficial to the health of the whole class.

On days when the class has been extra crowded, or a large number of visitors have been expected, the hall has been used with great advantage. Naturally, however, this cannot be used as a general rule as it is needed for lessons such as dancing and singing, etc.

Our Conclusions

After careful observation and much experiment, we have decided that this Art work is one of the most vital means of self-expression to the child, and through such the child should have ample opportunity to express himself. Colour is a dominating influence in stirring the feeling for beauty, and painting is therefore a natural approach to the teaching of art.

A Few Observations

It has been said before that a child will often draw and paint during the morning and it is often during these times when he has separated himself from the others that he has produced work full of inspiration. (Ex. 15, 17, and 19.) Collective lessons are, however, taken usually twice a week. Sometimes there might be three and sometimes none. It largely depends upon the interest of the class during the week.

If two lessons are taken, one is usually devoted to picture drawing and painting and the other to designing. The time taken for the lesson varies. It will usually start at 2.20 or 2.30 and continue until 3.15 (which is recreation time). But there is no hard and fast rule. The

lesson may be longer or shorter, and often a picture (or design) will need another period for finishing. At the same time a child may have finished all he wishes in fifteen minutes. A point to be noted here, too, is that, if a child

has not finished his picture in the lesson and shows no desire to continue during the next, he is not compelled to finish; but we usually find that a child will ask to finish in his next free period.

PICTURE DRAWING AND PAINTING TO-DAY

In judging children's pictures and helping them to do better work, it is well to remember the following points which have been gathered from careful observation of children's work.

A child's picture is a means of communicating knowledge, and it really tells far more than he is capable of saying in words. His experience of life is less than, and his outlook on life is different from, ours, and in judging his picture we must remember that it has been executed by a child.

For instance, the sky is often painted just at the top of the paper. It is not until the child is six or over that he realizes the sky comes down to the chimneys and house-tops, and, if no house is there, to the ground. For a small child the sky is up, and so he paints it up. The ground is at the bottom under his feet, and so is painted at the bottom of the paper. Again, suppose he has drawn a picture of a mother wheeling baby, and the baby has a toy lamb, in most cases mother will be drawn very large and the toy lamb will be, possibly, bigger than the baby. The child's idea of proportion does not correspond with that of the adult, that is, as the eye sees size. The child's perception of proportion is as his mind understands the importance of things: the size of things he draws is in proportion to their relative importance to him.

His interest and emotion should be the great factors at work and his technique will be far behind his vision. Because of the above conclusions he should be allowed to draw what he wants to draw. This however does not mean that he should be told persistently "Draw what you like." The ordinary child has not sufficient background and experience, and although his imagination is vivid it is also limited. It is our place to find subjects interesting to him, subjects

that will fire his imagination, and set him thinking and asking questions.

Every child is at a different stage in maturation, and so incidental help to each child is better than making statements to the class as a whole. We must not impose our adult standards too much, but naturally we must direct a little. The great thing is to help the child to realize the growth of things (tree, body, etc.); how things are made (chair, table, cart, etc.); the texture of things (wool, wood, flexible grass, etc.); and how things work (cart, wheelbarrow, tap, door, handle, etc.).

Unity is not at First Secured

The child is at first inclined to make his picture in isolated bits; his mind is not really ordered and methodical in either space or time, e.g. an aeroplane appears in the room, and the sun and moon in the same picture. A frame drawn as a border will often help the child to limit his field and enclose his ideas.

The child should be encouraged to draw quickly and not spend time over detail; the more spontaneous and the less laboured, the happier the result. (Ex. 8, 16, 18, and 20.)

While painting, the brush should be held above the tin. Unless an awkward position is taken the child should be left to find the most comfortable way of holding himself and his tools.

DESIGNING

To-day, 1937

The child is first taught how to design through running-writing patterns, and when he has a fair knowledge and understanding his

imaginative side is stimulated as much as possible. Below are given several ideas for this purpose. Although they are enumerated it must not be thought for one instant that the ideas should be used as separate lessons or in this order.

There should be nothing stereotyped in the teaching of art, and each child should be treated as an individual, with his own personality. Nothing can be more deadly to the creative spirit than to make the child work through a set of exercises or lessons. This cannot be emphasized too strongly.

Suggested Themes

The child must be encouraged to think for himself, and the lesson must be regarded as a suggestion only, which he will use freely. The following then may be regarded as a means of enlarging the child's store of themes for variation—

(a) Give the child different shaped paper from time to time, square, oblong, strip, etc.; also paper of different texture or colour

(b) Occasionally give a definite reason for the making of the design; cushion, frieze, panel, wall-paper, etc.

(c) Fold paper in different ways; in squares, oblongs, diagonally, criss-cross, etc. (Ex. A)

(d) The repetition of a given unit in little "houses" made by folding the paper, or original shape or unit suggested by the child

(e) Alternate repetition of unit (Ex. B)

(f) A sea pattern, country pattern, etc.

(g) A cover for a book about trains, dolls, etc.

(h) A pattern in two circles.

(i) A pattern in panels, one panel having straight shapes and the other having curly shapes. (Ex. D.)

(j) A pattern like the dress they are wearing, spotty, flowery, striped, bumpy, woolly, etc.

How to Stimulate a Sluggish Imagination

It will always be found that some children are scanty of ideas and have little imagination, and that others become stereotyped and will repeat the same pattern or one very similar,

especially if the work was originally praised. We have found that if such a group is present in a class, a lesson can help. The children should then be given a mullboard and asked to forget all they know. Then with closed eyes let the chalk draw for them. The drawn line or lines should then be ornamented. Sometimes quite surprising results grow from this little game.

Cutting Masks

The cutting of a mask will reveal new shapes to these children. For this a square of stiff paper is needed and the child cuts pieces from two sides. (Ex. C, by Billy, aged $7\frac{1}{2}$ years.) He then paints round the mask on his paper and covers the page. Into the shapes he has made anything can be drawn. Young children find this too difficult, but a class of seven-year-olds will tackle it and enjoy the new idea. They will be found to have their own plans for filling these shapes

A Few Suggestions

Every invention of the child should be encouraged and he should be constantly urged toward greater effort

In pattern-making the child should be trained to realize that shapes large and small, fat and thin, tall and short, curly and straight, will help to make his design more interesting; that colours dark and light, dull and bright, mottled and plain, will emphasize important shapes; that the shapes must hang together and be connected to make a pleasing result.

The teacher must remember that the child should explore and experiment, and for the purpose should have odd paper or mullboards. She should remember, too, that the finished design should not have as its standard a neat and careful result, but that the emotion, life and rhythm of the child should be felt through it.

WRITING TO-DAY, 1937

The Scribbling Stage

Everyone knows that children love to scribble for the sheer joy of the motor activity, or for the production of colour upon paper, or in imitation of the adult.

It is sometimes suggested to the little ones of three and four years of age, that they write a letter to their mother. This is a game that children of pre-writing age love to play. On examination these "letters" show always the same elements recurring, e.g. (see Ex. P),



and these in continuous rhythm, not halted or in little scraps as script demands. From this observation conclusion can be drawn that to encourage, develop and organize these natural fundamental movements must be a natural

approach to the teaching of a natural handwriting. Miss Richardson says, "These rhythmic pattern movements are the natural preparation for handwriting, just as prattle is the natural preparation for speech, and they therefore form the basis of this scheme."

From Scribble to Pattern

The children of pre-writing age are helped to organize their scribble into patterns and as their control and understanding grows they are shown further simple rhythms and encouraged to make variations on these. (Ex. E, F, G, H.)

While doing this the child develops his



FIG. 2

Boy drawing letters on clay slab, with lobster claw

muscles, gains rhythmic control and a lightness and swiftness of touch which are essential to good handwriting.

Early Writing Should be Large

The early stages are best practised on a large scale. Blackboards, big millboards or washable walls are excellent, for these allow much freedom and the use of the whole arm muscles, and will encourage easy fluency and an adventurous spirit. Large sheets of kitchen paper or baker's wrappings can be used with much success with a soft drawing tool such as cosmic crayon, timber crayon, charcoal, crayon or chalk.

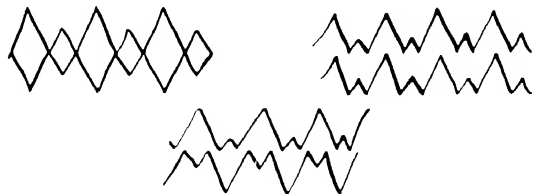
The rhythms should be written from one end of the paper to the other without lifting the chalk. This makes for bold, speedy, rhythmic work, rather than neat laboured effort.

Kinds of Rhythm

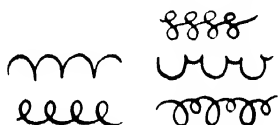
Usually we introduce the zig-zag or "up down" rhythm first and show that by drawing two lines of these touching each other and then colouring the diamonds alternately a pretty pattern is made, e.g.



Those who understand this idea are then shown that lines of big zig-zags and little ones alternating will make a different pattern, these either touching or drawn under each other, etc., e.g.

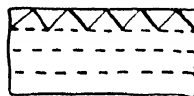


As soon as the child has grasped this he will go on finding all sorts of possibilities. There is no need to keep the child to one rhythm however and he should be shown others, e.g.



and should be encouraged to get as much variety as possible and watch for the shapes he is making by drawing his attention to the spaces in between the lines, that is the small pieces into which the lines have cut the paper. It is these pieces, these shapes, that will be coloured, and a design is a picture of shapes. The child should be aware of this. It is sometimes helpful to suggest that the lines should be rewritten after the pattern has been painted, for this will emphasize the shapes.

Children who have never drawn on a large scale will be encouraged to do so if the paper is folded and they are told to draw to the top of the paper and down to the crease, e.g.



A Few Hints

We have now discovered that the writing does not need to be taught by numerous collective lessons. Give the child every opportunity to gain control and practise movements through pattern work, and give him written copies of poems, stories, songs, etc., that he knows, and it will be found that he will be able to copy them at six and a half years of age with good style, ease and considerable speed.

When a child can read and wishes to express himself in writing, he is encouraged to trace over a copy (in order to aid his rhythm, style and speed) and then to write that same copy each day.

(Original stories by children of 7½ years will be found backing pages 946 and 947.)

If a common difficulty arises, e.g., a backward "a," a lesson can be taken on the formation of "a's," and a pattern then drawn using "a" as the principal motive (Ex. N and R)

POTATO PRINTING TO-DAY

The children seem to know instinctively how to cut a stamp, and quickly learn to print accurately and with speed. Several of them do practise it at home and then bring along a curtain they have made to hang in the kitchen, etc., for their mother.

Lessons 1, 2 and 3, as described on page 945, are now usually acquired in one lesson. When the child is ready, he can be shown how to experiment and get different patterns with the same block. This is great fun, and for the purpose the child always has a practice paper and will probably spend the whole lesson experimenting in different ways, which to my mind is far more valuable than covering a large surface very carefully and possibly mechanically.

There can be no doubt that the child thoroughly enjoys being allowed to experiment for himself in this way, or that the process is more stimulating than mere mechanical repetition would be.

Points to Consider Before Attempting this Work

An old tablecloth or a piece of felt should be used as a pad for the paper upon which the child has to stamp.

The natural shape of the potato is not generally accepted, but for beginning this work with little children there is no reason why the natural oval of the potato should not be used. After much practice the children can be shown how to cut a square or oblong block. Stamping with such a block needs far more control and precision and is therefore not to be recommended to the child who is not exceptionally good at the work.

A finger and thumb piece should be cut out of the back of the potato to enable the child to

be more accurate and to prevent him dirtying his fingers.

To cut the pattern, the knife should be held in a slanting position. We find, however, that the children will discover the most comfortable way of holding it and the easiest way to get the desired result.

The laying on of the block, that is the actual printing, can be done in many ways. During the first lessons with infants, it is as well to let them print as simply as possible. Using the top edge of the paper as a guide, the blocks should touch the edge and each other.

Suggested Exercises

1. Use plain half of a potato. (See Ex. K.)
2. Cut nicks from around the edge.
3. Cut nicks and scoop out middle. (Ex. J.)
4. Stamp alternate lines of potato and carrot. (Ex. I.)
5. Stamp all over, then use a tiny stamp with a different colour giving an inset jewel effect.
6. Stamp a pattern and then superimpose another in a different colour. (Ex. L.)
7. Stamp a pattern and then pick out certain shapes with the brush in a different colour.

The pattern, when stamped, should give the impression of dark and light, and for this effect dark brown or black for the initial colour is best.

This is dull for an Infant School and our children use any colour they wish.

The teacher should try to get a rhythm of printing with speed and accuracy, and should discourage slow, laborious work.

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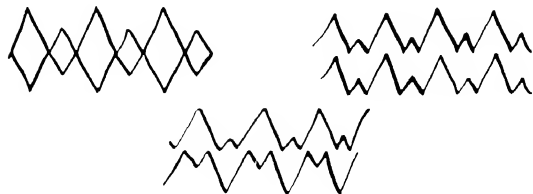
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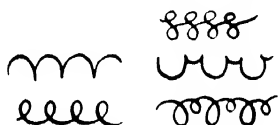
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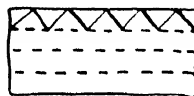


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SILHOUETTE WORK AND SCISSOR PICTURES

THE little ones always find paper-cutting a delightful occupation, and will take the keenest pleasure in cutting, pasting, and experimenting with brightly coloured papers. They are delighted to find that they can make a picture with cut-out papers, which would be beyond their skill in paint and pencil. Most attractive calendars, posters, friezes, Christmas cards, programme covers, and book covers can be made by this method, and work put to good use gives an added joy to the child.

Managing with Scissors

It will be found that the very youngest children find considerable difficulty, at first, in managing a pair of scissors, or in cutting along a line; their chief delight is to chop a piece of paper into little pieces. But after a little practice, they can be taught to cut along a pencilled line, or round an object or figure from a printed picture.

Give the very little ones plenty of cutting practice, both with and without a guide, and it is amazing to see how very quickly they learn. A snip here, and a snip there, to improve the shape of a figure or object, is excellent practice in drawing.

Pattern and Picture Making

Although they should be given a chance to experiment for themselves, it is also necessary, if good results are to be obtained, for a series of carefully graded lessons in pattern making and picture building to be given. Such a course will form a good groundwork in the appreciation of composition and design, and will teach the child to recognize shapes, to select material carefully, to plan and space well, to acquire originality of thought and dexterity in manipulation.

The black and white illustrations do not

really give an adequate idea of the really charming pictures made entirely from shapes of coloured papers. The pictures (Figs. 1 and 2), built up in easy stages, are all very simple to do, and well within the powers of any kindergarten child.

Let the children begin with big shapes—hills, sky, sea. Fig. 1 *a* is a complete picture in itself, even if nothing further were added; and it is composed of two pieces only.

The little child's ambition generally exceeds its skill, and the teacher should be ready with suggestions and occasional reconstruction, when necessary.

It is well to begin with simple shapes in black, or paper of only one colour, and to give well-known subjects for illustration.

Good Examples

Put up some good examples of finished pictures, so that the children may see what they are aiming at. This will act as a great incentive. Some simple posters, in flat colours, might be used to advantage as examples. It will be found helpful to build up a picture with the children as far as Fig. 1, diagram *b*, for example, and then allow each child to work individually, putting in trees, birds, flowers, a boat or castle, or anything he fancies. Great interest will be taken in comparing the finished pictures. Later, the child may be allowed to make a picture entirely on his own.

From the very beginning, the child should be taught to rely upon himself, in the choice of colour and arrangement, and also to fold and cut shapes from Nature specimens. This early training in judgment and self-reliance will be very apparent when the child grows older. He will make his own models, find out how things are made by taking them to pieces, and introduce new and original ideas of his own.

Great stress should be laid upon neatness and

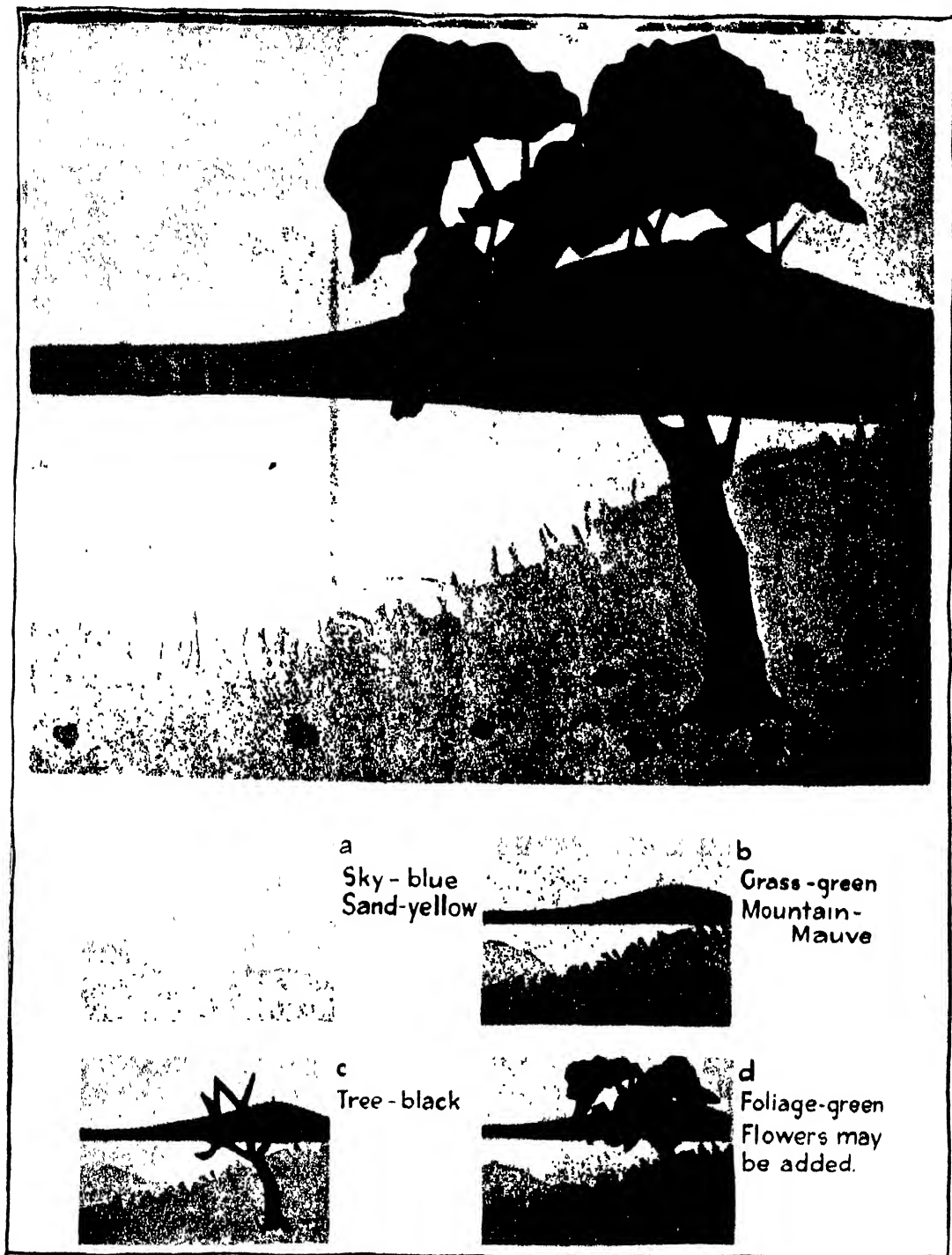


FIG. 1

Landscape Built Up in Paper Cutting

cleanliness in all stages, for like all other forms of handwork, it can be badly done and lose much of its educational value. Each child should be given, or allowed to make, a large envelope or folio, in which to keep scissors, work in hand, and odd scraps of paper. This will save waste, and also time in giving out and collecting material.

class. These papers require paste, and are easier for the smaller children to use. It will be found that it is quite easy to keep the work clean, if each child is given a piece of paper upon which to rest the pieces to be pasted, and also a piece of rag with which to pat the pieces into place, and wipe off the superfluous paste, should it ooze out at the sides.

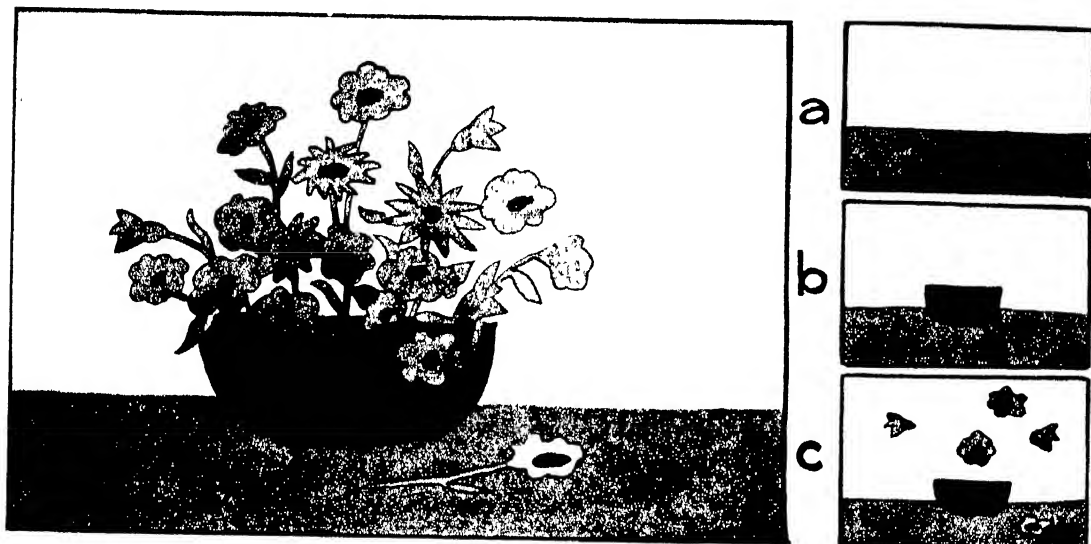


FIG. 2

Picture in Paper Cutting

(a) Background : Pale Yellow, Foreground Mauve (b) Bowl : Black (c) Flowers : Blue with Orange Centres ; Leaves : Green.

Pasting and Gumming

A very important point in the making of these silhouette pictures is the process of pasting or gumming. Gummed papers *can* be procured, but only in a limited number of colours. If gummed papers are used, the children must be shown how to damp the gummed side, either with a brush or finger, using as little water as possible. A better plan still is to rub the gummed side slightly over a damp pad of felt.

Unless great care is taken, the little ones will swamp the paper, washing off the gum, and making the colours come off and run into each other.

Art papers and poster papers can be bought in large sheets, in all shades and colours, and this is a much cheaper way of supplying a large

Getting the Best Effects

Before pasting the various shapes on to the background, let the children arrange and re-arrange them, to get the best effects. Show them a well-arranged piece of work next to an overcrowded, badly-arranged one. It is quite a good plan for the teacher not to allow any pasting until she has seen, and commented upon, the arrangement.

The use of black paper for scissor pictures will be found of great value, especially when illustrating stories, for here the child can be occupied only with form, and leave the more confusing question of colour alone.

When, however, the class is ready to use colour, do not give the children too many colours to choose from. This is an opportunity

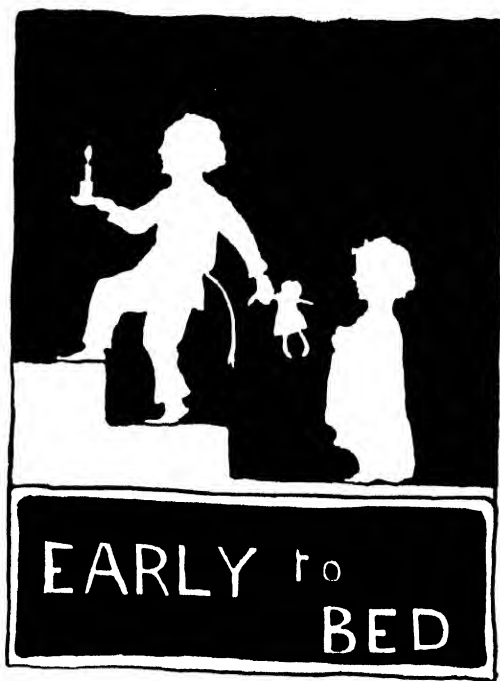
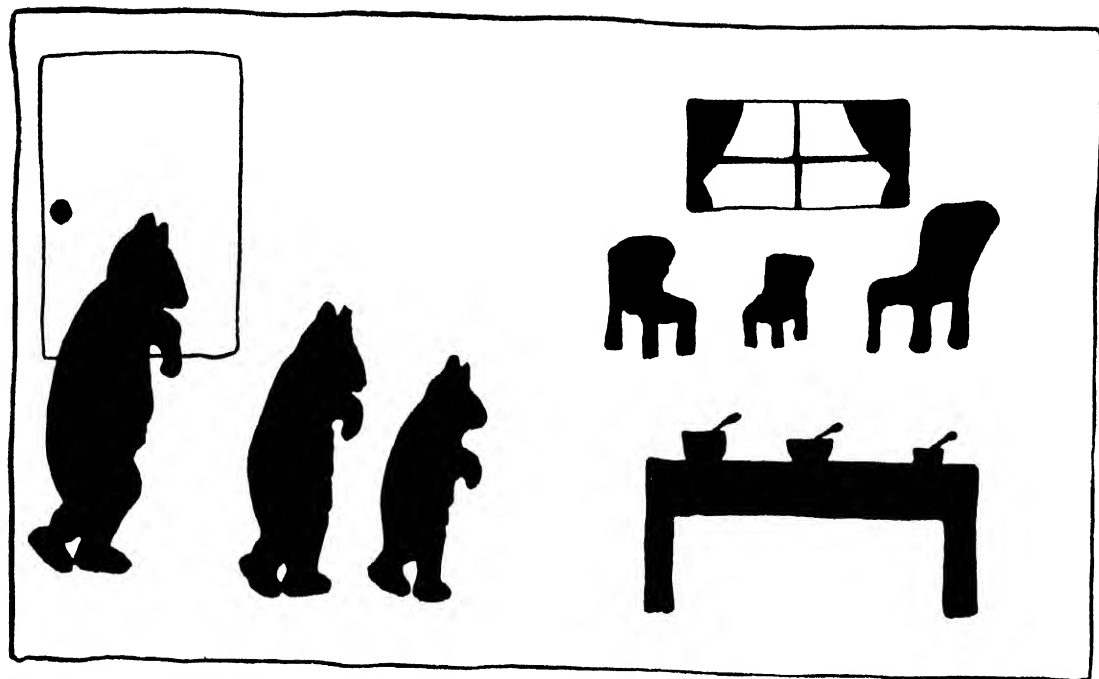
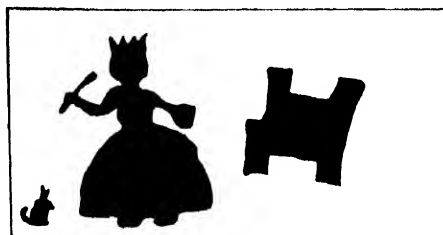
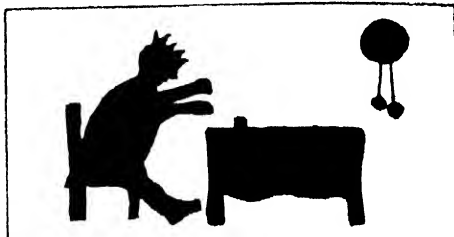
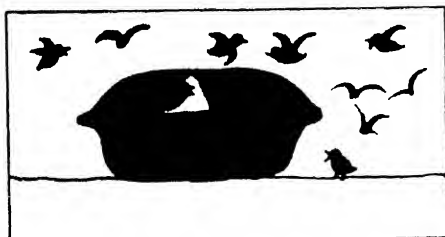


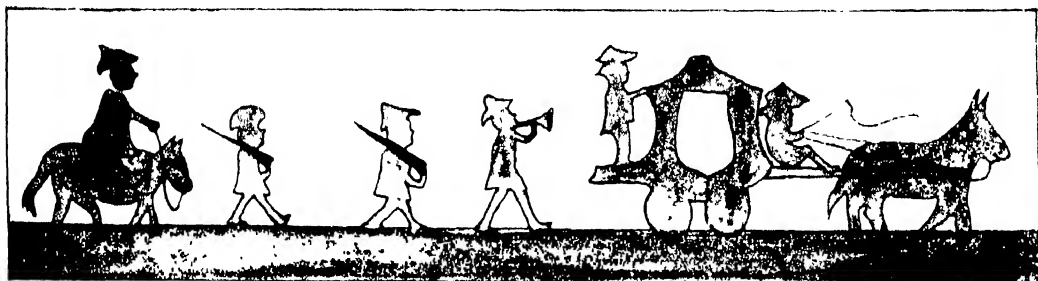
FIG. 3

Illustrations in Paper Cutting



Sing a Song of Sixpence

Friezes for the Schoolroom



The Lord Mayors Show

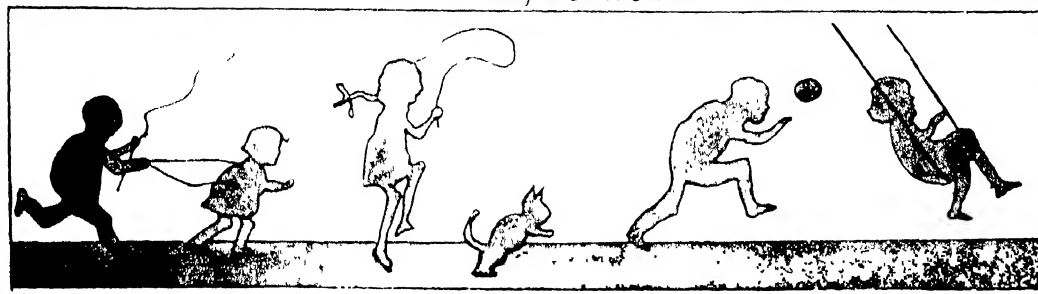


FIG. 4

to talk to them about colour and colour combinations and differences. It will be found that change of colour under varying conditions of light and weather is for the most part beyond the young child's comprehension. He will see grass always as green, and if asked for the colour of a tree trunk the answer will usually be brown or black.

Scissor Pictures

"Sing a Song of Sixpence" (Fig. 4), is an example of children's scissor pictures. Here the story has been illustrated in four pictures, and the little figures have been cut without a guide, after hearing the story, and also seeing it acted at a school concert.

"The Three Bears," and "The Pig who would not go over the Stile," are also good stories for the children to illustrate.

These scissor pictures are an excellent outlet for the child's imagination and powers of visualization. They should be made entirely unaided, and represent the spontaneous work of the child.

Sometimes, however, a pattern may be given of one of the characters. For instance, if a pattern of the big bear (page 533) is given, a medium-sized bear and a tiny bear can be cut freehand.

The "Early to Bed" silhouette is a suggestion for a health poster to be pinned up in the classroom, and may be carried out in black and white, or colours. The letters may be cut from paper, as shown by Fig. 8, *Paper Folding and Cutting*. Children love making these posters, and very keen competition will result from the promise that the best one shall be pinned up.

Another method of making posters and friezes is to let the children work in groups, instead of each making one of his own. Processions, such as "The Lord Mayor's Show" (Fig. 4), or the "Animals going into Noah's Ark," make good subjects.

For instance, a long strip of paper is pinned to the wall, to be used as a background for the frieze, and a group of children told to cut out one figure, another group a second figure, another a tree, and so on. Finally, the best efforts are selected and pasted on to the frieze. In this way

quite a good piece of work can be done. The most difficult shapes should, of course, be given to the cleverer children.

Picture Building in Easy Stages (Fig. 5)

The following suggestions are given for lessons in picture making—

1. The teacher talks to the children about Spring time, and draws in coloured chalks on the blackboard, trees, hills, clouds, sheep, flowers, whatever the children suggest.

2. A piece of blue paper, 8 in. square, is given to each child.

3. Yellow papers for sand are now cut and pasted on.

4. The grass is next cut from an 8 in. piece of green paper.

5. A mountain is put in. Here it may be explained that a hill in the distance, even though covered with grass, does not look green, but blue or mauve.

6. A tree, or several trees, are cut from black paper. These can be cut all in one, or the branches stuck on to the trunk afterwards.

7. Shapes of green paper for foliage are next added, and coloured flowers pasted on to the grass.

Finally, the pictures are trimmed, mounted, and pinned up for class criticism.

While making these cut-out pictures, it may be pointed out that objects in the foreground look much bigger than objects far away, thus drawing the child's attention to a simple rule in perspective.

With older children, it may be found advisable to let the child pencil in the shapes first, afterwards cutting along the lines. Another useful suggestion is to hand out cardboard patterns for the most difficult shapes, round which the child can pencil the outline.

Friezes for the Classroom

"The Lord Mayor's Show" (Fig. 4) is built up in the following way—

1. After letting the children talk about, and exchange ideas on, a Lord Mayor's Show which has recently taken place, sketches may be made on the board of carriages, soldiers, and horses in simple outline.

2. The children are given a long strip of paper for the background. (Any colour could be used.)

3. The shapes are then cut or torn from grey paper, and pasted on.

The Play Time Frieze is made in the same way.

Other interesting friezes may be made to illustrate history, geography, and nature.

Free Expression in Illustration

This is a very popular method of illustration

paper, from which shapes of characters and objects are cut.

3. The shapes are then arranged and re-arranged on the background before pasting. Do not let the children be easily satisfied with the first arrangement.

Some suggestions may be given by the teacher



a

Sky: Blue Ground
Cream



b

Hedges: Dark Green
Grass: Light Green



c

Gate: Brown
Clouds: White



d

Moon: Pale Yellow
on dark blue paper



e

House: Gray
Hedges: Black



f

Hill: Pale Green
Path: Yellow

FIG. 5

Building Up Pictures in Paper Cutting

with the little ones, and paper-cutting and tearing give exercise in both the drawing and the composition of a picture.

1. A story or poem is read to the children. They are told to draw the story.

2. Each child is given a sheet of black silhouette

while the work is in progress, but as far as possible the work should be spontaneous. The children will soon learn to criticize their work themselves, and begin it again, when they find that their people are taller than their trees, etc.

Decorative Motifs, Patterns and Borders

It is hardly necessary to give examples of paper-folding and cutting, since all kinds of interesting patterns will result from the simplest

There are endless possibilities in pattern making, just as in picture-building, and the children will enjoy making novelties, such as quaint animals, birds, and fish, from squares and circles.

The easiest way to make free-hand cutting is

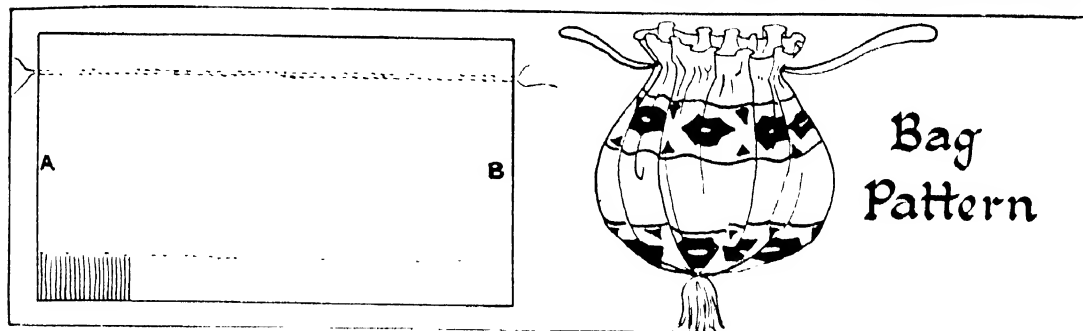


FIG. 6

Note how the material is fringed at the bottom. The design is applied before the bag is sewn up

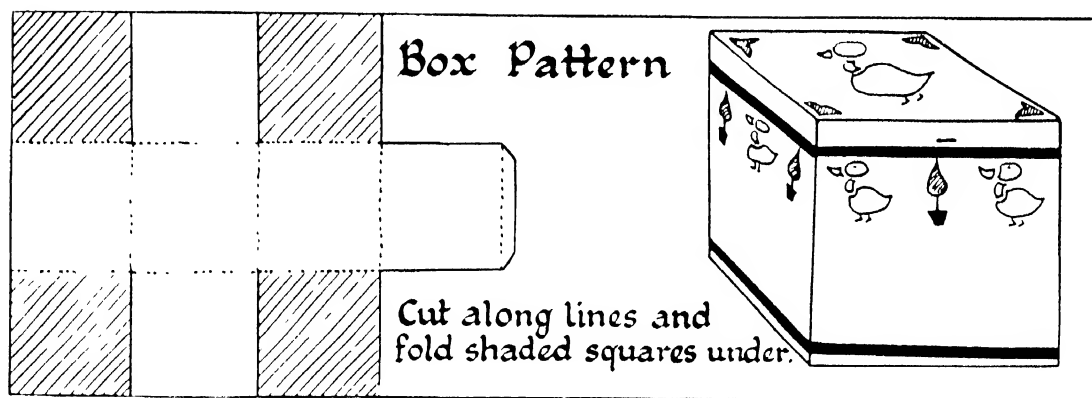


FIG. 7

The design is applied before the box is folded

cuts in folded paper. (See Fig. 8 b and c and also *Paper Modelling Section*.)

The sweet bag and box illustrated in Figs. 6 and 7, have been very effectively decorated with coloured motifs. Here several motifs are cut out together from folded papers. This ensures the sizes and shapes being uniform. A complete decoration for sides, or top of box, can be cut from a single large piece of paper (see Fig. 8 d). Lace table mats can also be made in this way (see page 964).

to fold a piece of paper in half, and cut double—especially when cutting heads, hats, animals, or figures that should have both sides alike.

Geometric Shapes

First, let the children cut squares, triangles, circles, and oblongs of coloured paper, using not more than two colours. It is possible to cut as many as eight shapes at a time, if fairly thin paper is used; and two different shapes

arranged alternately, as a border, will make a delightful "repeated" pattern. It is a very quick method of pattern making, and one which a young child can understand.

In the same way, these units may be pasted on to squared paper, thus making a repeated design for tiles or wall-paper, or the cover of a box.

6. Finally cut round the lines necessary to make the large square into a box (Fig. 7).

This little patterned box can be completed in one period, and will give great satisfaction to the children.

Many interesting patterns, which the children will think of themselves, may be built up from various shapes, in this way. But it is wisest to

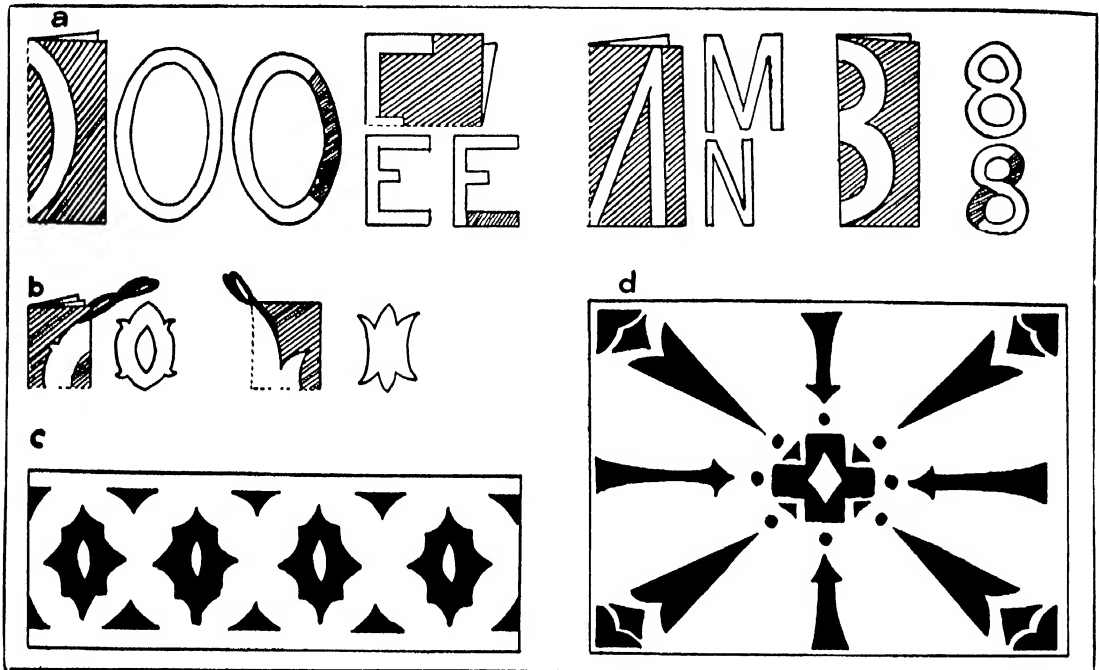


FIG. 8

Letters and Designs Cut from Folded Paper

Exercise in Pattern Making

Here is a suggestion for an exercise in pattern making—

1. Give each child an 8-in square of yellow construction paper.
2. Fold this twice in each direction, making sixteen squares for a box formation (Fig. 7)
3. Now hand out a strip of green gummed paper, and show how it may be folded into eight, and a little tree shape cut or torn from it. A tree shape is very easy to make from an outline drawing on the black-board.
4. Next, take a red or orange piece. Fold this also into eight, and cut from it a small circle or simple motif
5. Now take the eight little trees and eight smaller motifs and arrange and paste them alternately, exactly in the centre of each square.

begin with repeated patterns, and a limited number of colours—two or three at the most.

Motifs for Needlework and Handwork

In the same way that patterns and pictures are made from paper, shapes can be cut from odds and ends of material and leather scraps. A cat may be cut from black velvet, an elephant from grey cloth, hands and faces from scraps of chamois leather—using tiny linen buttons for eyes, lengths of thread for whiskers, and so on.

Gummed on to a book-marker, calendar, or any other similar article, these make charming little gifts, which the children will delight in making.

STENCILLING

STENCILLING is first and foremost a means of decoration. It should be used only to ornament something that is perfectly plain and without any form of embellishment whatever. Some very lovely effects can be obtained with a stencil that is quite simple, if it is well planned and colours carefully chosen.

Designing a Stencil

The actual process of stencilling is simple. The most difficult part lies in the designing, and it is as well to allow the little ones to use stencils already cut for them. It will provide them with a fascinating occupation, and at the same time will cultivate the eye in the use of colour and form, and provide some exercise in simple designing. The frieze design (Fig. 9 f), is made with three stencils, a duck, an apple, and a tree. It is an example of a well-planned simple repeating border, which can be attempted in the kindergarten.

At first, it is always somewhat surprising to find what a very small idea children have of spacing; but if a few good examples are shown to them, they will quickly see the difference between a higgledy-piggledy arrangement of shapes, and a nicely planned one. A second attempt might be made on squared paper, so that the little ones may have the satisfaction of producing a good piece of work.

Designs Cut in Paper

Stencil-cutting with a knife is too difficult for tiny unpractised fingers, but very pretty designs can be cut with a pair of scissors from a square of paper folded four or eight times. Figs. 9 a and b show how this is done, and the resultant patterns. (Note the difference in the use of white or coloured papers.) A fairly thick paper must be used if it is to be used as a stencil; and shapes of any size, cut out, will be sure to result in a pattern.

A square or circular pattern of this kind is

very effective stencilled in bright colours on to a small wooden box lid, or on a model made in a paper-modelling lesson. The little ones will always choose bright colours for preference, and they may choose two or three colours, which they think look well together. The colours should be the choice of the child and not the teacher; they can only learn discrimination by really giving thought to their choice.

Cutting a Stencil

The correct way to cut a stencil is with a knife—either a sharp penknife, or a stencil knife. The patterns should be so arranged that the stencil will remain intact after cutting. This is done by leaving a tie between each shape; and each hole which is cut should be surrounded by paper. The knife must be held upright, as in Fig. 9 c, and always dragged *towards* the worker. Great care must be taken not to let it slip beyond the pencilled line.

Oil royal paper is usually used for stencil-cutting; but stout cartridge paper does just as well, and it may be varnished, or rubbed over with linseed oil, before use, to make it more durable. The paper, or card, should be laid upon a hard surface—glass or cardboard, but not wood, for the graining is apt to make the knife slip. If the knife should slip, a piece of stamp paper, or gummed paper, will repair the damage. The most important point in the cutting is to make clean decisive cuts, for the chief charm of a stencil is the clear decided outline of its shapes.

Using a Stencil

The print is made by dabbing colour through the cut shapes in the stencil plate. It must never be rubbed, nor must the brush be dragged across, or the colour may get under the edges of the stencil and spoil the clean outlines.

Stencil brushes may be procured in all sizes. They have short bristles of a uniform length,

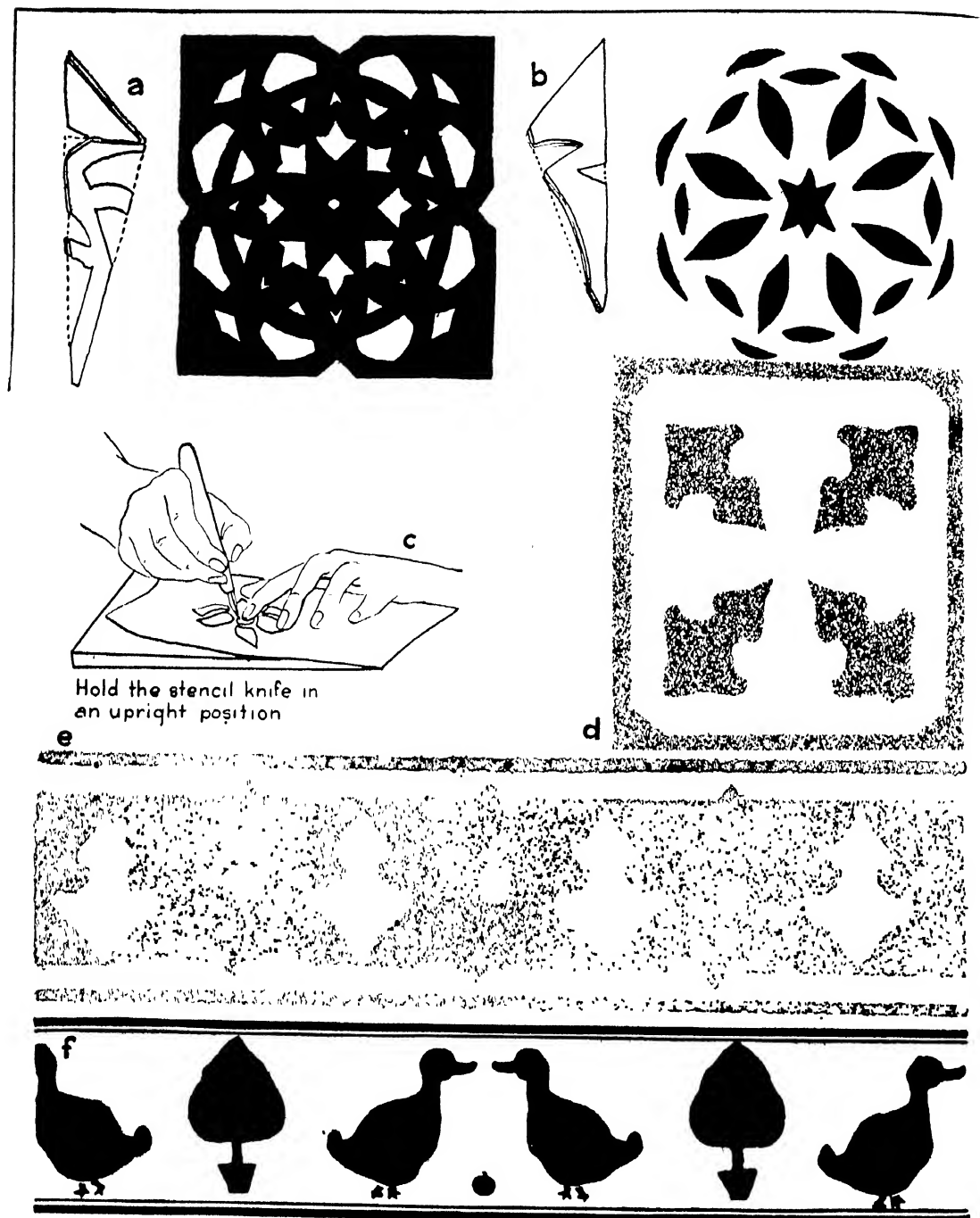


FIG. 9

Stencilling and Spatter Work

(a) and (b) Stencils cut from folded paper (d) and (e) Examples of Spatter work. (f) Stencilled border from separate units.

and are thus able to distribute the colour evenly over quite a big expanse. Place the plate over the article to be decorated, and pin it firmly into position with drawing pins, so that no movement can be made while the printing is in progress.

with white paint. If the stencilling is to be used on material which will require washing, oil colours mixed with tapestry medium will give the best results.

When the article has been placed ready for stencilling, squeeze the necessary colours on

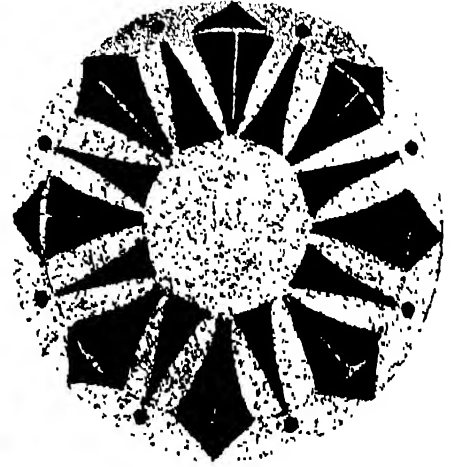


FIG. 10

Stencil and Spatter Work Combined

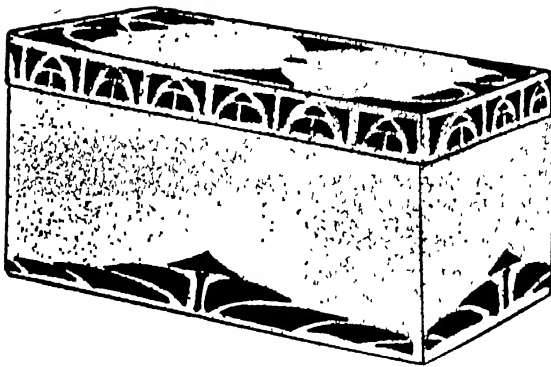


FIG. 11

Stencilled Decoration on Box and Lampshade

In the case of paper or material, pin the whole down flat on to a board, so that nothing can crease or slip

Preparing the Colours

Tubes of cheap water-colours are the best for general use. If light shades are required, the colours should not be mixed with water, but

to a flat palette, saucer, or sheet of glass; dip the brush into a colour and dab it several times on to the palette, so that there will be only just sufficient to moisten the paper. If the colour is too wet, or if too much is used, the edges will become woolly. The best results will be obtained if the beginner uses as few colours as possible and puts them on in perfectly flat, even stipple.

Spatter Work

There are other methods of stencilling, and one of them, which the juniors may try, is spatter printing. Fig. 10 shows two examples of spatter work—the border is composed of a number of motifs cut from a folded square of paper, and the square design is made from the paper from which the motifs were cut.

The procedure is as follows. Dip an old tooth

When the children have learnt how to apply a stencil, let them decorate something that can be taken home and used, or which will make a pleasant gift.

Gifts for Taking Home

There are all kinds of small articles made of white wood, or papier mâché, that can be bought inexpensively. Better still, let them

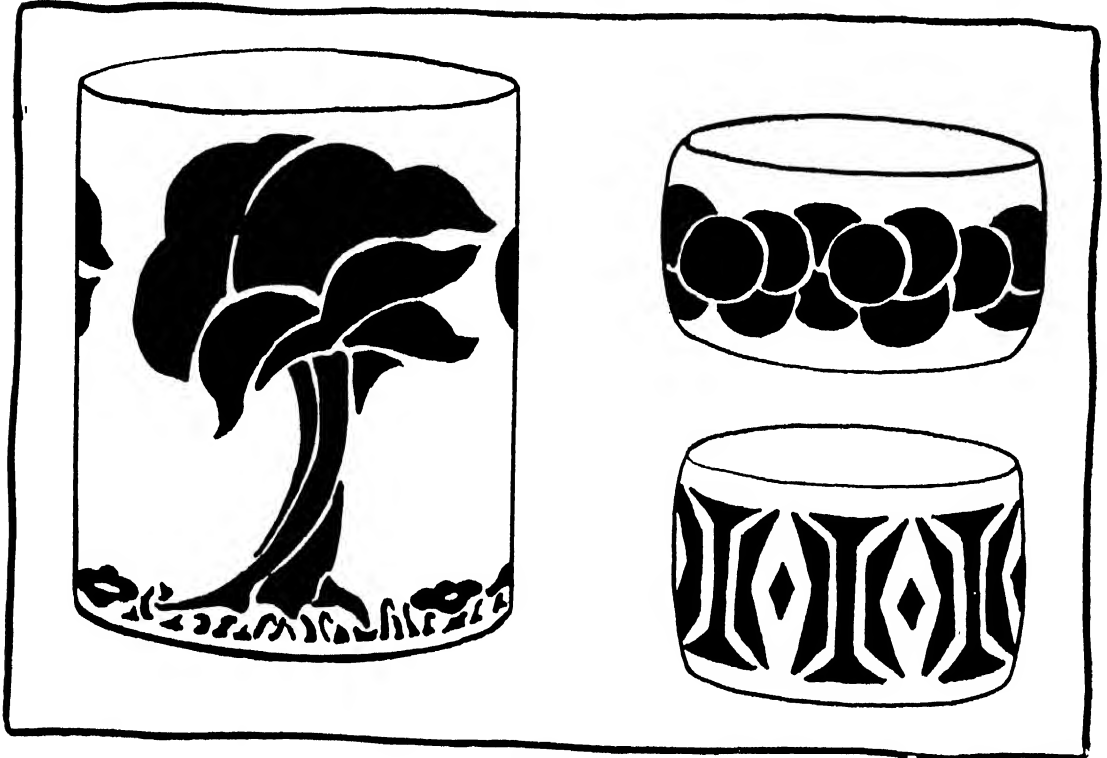


FIG. 12

Useful Gifts with Stencilled Decoration

brush, one with good hard bristles, into a colour, or indian ink. Shake it, and then dab several times on to a piece of paper to ensure it being free from all superfluous moisture. The spatter is made by passing the edge of a knife or similar hard blade, to and fro, across the top of the bristles, when a fine spray of colour will settle on to the paper beneath. This may be done over any mask or stencil, and if any small parts of the stencil need pinning on to the design itself, it is advisable to use needle points, because drawing pins leave too large a hole.

convert discarded boxes, jars, etc., into a thing of beauty, or themselves make an article for decoration. A lampshade (Fig. 11) is easily made from a piece of drawing or pastel paper, while tobacco tins, cocoa tins, marmalade and honey pots can be decorated and used for flower holders (Fig 12) and spill holders. Brown earthenware makes a very charming background for stencilling in gay colours, while glass pots and jars may be stencilled too, provided that they are first thoroughly cleaned with hot water or turpentine.

PRINTING WITH WOOD BLOCKS AND LINO CUTS

A PROBLEM which often arises in the junior school and kindergarten is how to produce programme covers, or cards, in large quantities. These are to be the work of the children themselves, and at the same time they must be attractive and pleasing. For this purpose nothing could be more suitable than prints in colour, or in black and white, made from wood blocks or lino cuts.

The entire process of drawing, cutting, and printing can be carried out by the children, and

each child obtains an enormous amount of satisfaction in finding that he can make endless copies of his own drawing

Printing with Wood Blocks

Printing with wood blocks is perhaps the simplest method to use, and the difficulty found by the youngest and less skilful children in actually cutting the wood may be overcome by having the blocks made in the older children's woodwork classes.



FIG. 13

Lino Cut Designs for Programmes or Book Covers

The curtain illustrated in Fig. 14 *c* has a border printed by the simple process of repeating a unit at regular intervals. This motif (Fig. 14 *a*) is cut from a thin piece of wood, and nailed with small brads, or glued on to a small block of thicker wood. (This is an easier method than carving out of the wood itself.) First of all the design is traced on to the wood, and it is then cut out with a fret saw. Similar designs may be achieved by cutting shapes from folded papers.

The block is now ready to be used, and may

needlework, or the printed design may be merely outlined with stitchery very effectively.)

The owl design (Fig. 14 *e*) is carried out in the same way, and makes a very attractive greeting card. These blocks can be used again and again, and may be adapted to many needs.

Linoleum Cutting

Although lino cutting is perhaps a little more involved than printing with wood blocks, here

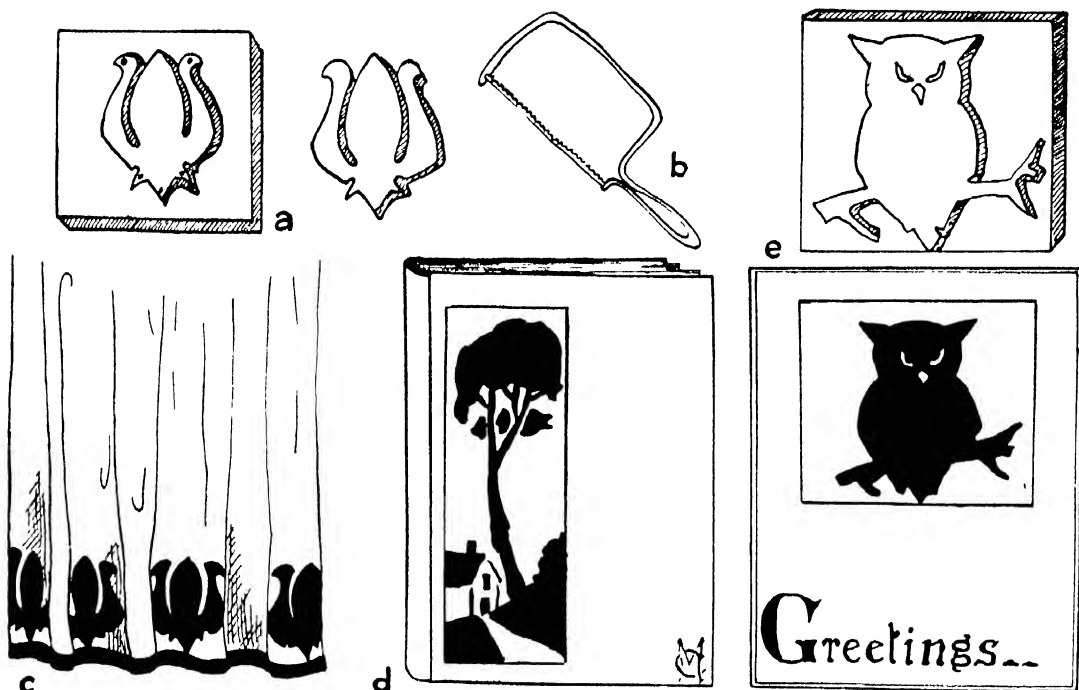


FIG. 14

Block Making and Block Printing

either be pressed upon a pad soaked with colour, or painted over with a brush. Ordinary water-colours may be used if mixed to the consistency of paste, or dyes or *tempera* colours.

Printing on Materials

If the design is to be printed upon material, it is necessary to pin the material down on to several thicknesses of paper to ensure a good clean outline. (Incidentally, this is a very good method of stamping patterns to be used for

a child of seven will be able to cut his own block, and carry out the complete process from his own drawing to the actual printing.

Printing with lino cuts can be reduced to a fine art by older students, and special outfits and tools obtained. But for the smaller children, all the necessary tools can be home-made, and the materials found at hand.

"Jack and Jill" (Fig. 15) is a reproduction of the work of a child of seven. Children's lino cuts often possess a quaintness and charm peculiarly their own.

Tracing and Cutting the Design

First, place over the drawing a piece of Japanese tracing paper (typewriter duplicating paper is an excellent substitute), and trace round the outline with a small brush dipped in Indian ink. Then, after damping a piece of linoleum which is a little larger than the

gouge, being careful not to cut too deeply. An eighth-inch is deep enough. The paper remaining on the block must then be washed off with a sponge.

The block may be inked with a soft stencil brush, and the ink or colour must be mixed with flour or rice paste. Tubes of colour ready mixed may be bought for this purpose.

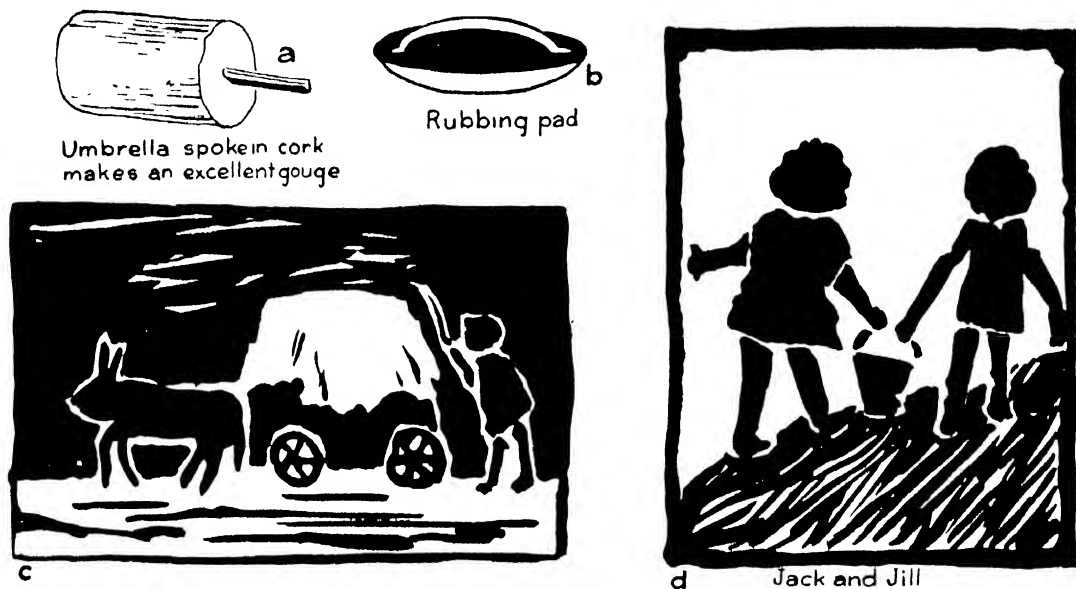


FIG. 15

Lino Cut Illustrations by Child of 7

actual drawing, cover it with a thin coating of liquid gum. Now turn the lino on to the tracing, press it down, turn the whole over, and press the tracing down firmly with a piece of rag.

The block is now ready to cut. This may be done with a penknife, or small gouge. An excellent gouge can be made with a spoke from an old umbrella; one end should be sharpened, and the other stuck into a cork, which serves as a handle (Fig. 15 a). This implement will be found quite as satisfactory as the special tool made for this purpose.

Cut along all the lines, so that a little ditch is formed and narrow strips of lino are removed. Then cut away all the waste surface with the

Printing with a Lino Cut

After inking the block, lay a piece of typewriting paper down on to it, and rub off an impression with a baren, or rubbing pad (Fig. 15b). This can be made by sewing two circles of strong chamois leather together, and stuffing them tightly with paper or rags. A strip of leather, sewn on, will serve as a handle. An actual Japanese baren is an expensive item, and not at all necessary for a beginner.

Rub the pad over the paper on the block with a to-and-fro movement. As many impressions may be taken off as are required, and great is the children's joy in this last process of producing countless copies of their own drawings!

STICK PRINTING

STICK printing as a means of decoration is a handicraft that the little ones will thoroughly enjoy. It is really a form of wood block printing, but far simpler to use, and the very youngest can make good and pretty designs by this means.

Spacing plays a very important part in stick printing designs, and it is therefore an excellent means of training the hand and eye, and developing judgment

Beginners should always be given squared or ruled papers to work on. After some

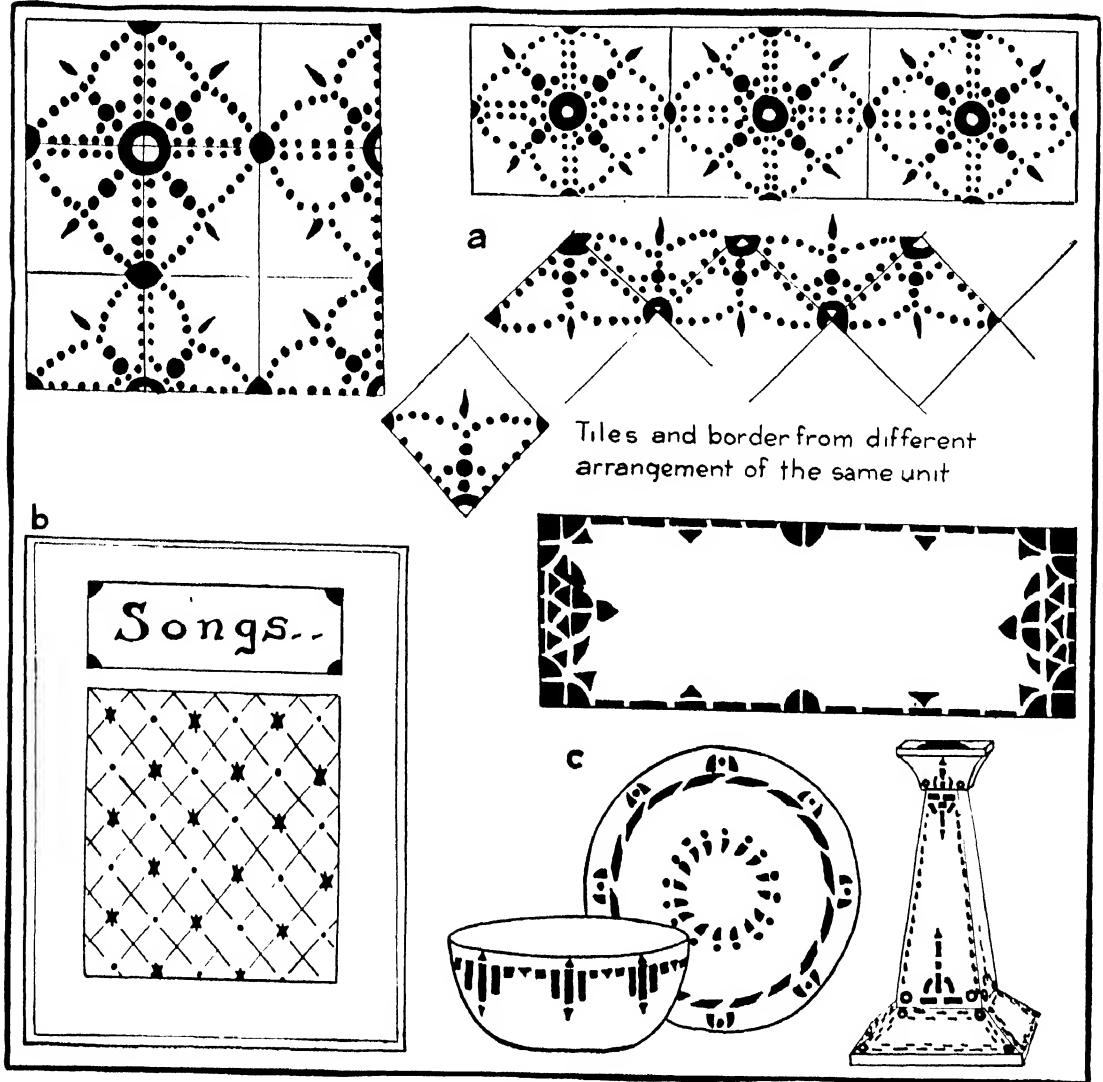


FIG. 16

Decorative Effects with Stick Printing

practice, it will be found that prints can be made freehand.

Fig. 17 illustrates a large variety of shapes and patterns. The sticks may be bought in sets, or separately; but where large quantities are needed to go round a class it will be found advisable to have them made in the boys' wood-work classes, while matches, spool tops, small pieces of macaroni, and cane and wooden beads, can be utilized to good purpose.

Each child should have a set of his own, and also his own colour pads. A small box containing these essentials will be a very proud possession.

Making the Colour Pads and Patterns

The colour pads should be made from small pieces of felt, which are soaked in colour or dyes and put into a palette or tin. Small tins, such as those that have contained nibs, or lozenges, can be utilized for this—and quite a good collection can be made, if the class are asked to

bring them. Each colour pad must be kept in a tin, or palette, of its own.

The patterns are made by pressing the stick on to the pad, and then on to the paper or article to be decorated.

The little ones should begin by filling in borders and squares, making little mats, and decorating dolls' furniture. Gay and effective patterns can be made on dollies' bedcovers, curtains and walls in the doll's house.

Different patterns can be made by using a designed unit, and applying it in various ways. Fig. 16 *a* illustrates one unit which is used to make either a border or a tile design.

Perhaps stick printing is particularly adapted to the decoration of book covers, and it can also be applied to wooden and papier mâché articles, materials, leather, and cardboard. It will be seen from the accompanying illustrations (Fig. 16) what really charming decorations can be made from the repetition of perhaps not more than three shapes; and all kinds of colour experiments may be made by the use of different coloured backgrounds.

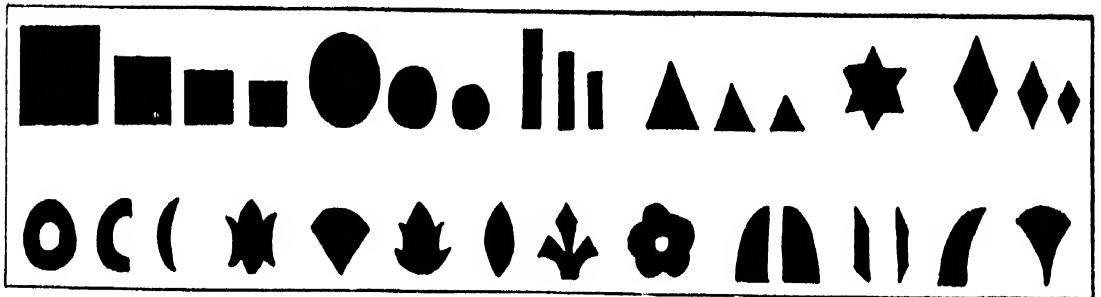


FIG. 17

Suitable Forms for Stick Printing

MODELLING

MODELLING is the ideal medium for the little child's expressive work. It provides an outlet for muscular activity; it gives the child an idea of form through the sense of touch; and it provides numerous exercises calculated to train both hand and eye. Moreover, even the youngest children can always be kept happily and profitably occupied with it.

Plastic Mediums

Before going into the various methods of work, let us consider what materials to use

Plasticine The chief advantage in Plasticine is its cleanliness. Also, there is no trouble involved in keeping it in plastic condition, and it is supplied in a large range of colours, which makes it more enjoyable than colourless materials for young children to use. But it is expensive, and therefore it cannot be given to each child in large quantities. This means that small models are always made, which is not good for young children. One of the chief aims in teaching modelling to the little ones is to make them strive after broad effects, and to discourage that attention to detail always seen in their drawing. The best plan is to have a supply of both clay and Plasticine, and use whichever is best adapted to the particular subject the child is working on

A little petroleum jelly may be worked into the Plasticine if it should get hard, but if it is kept in a tin box, it will keep in condition for an indefinite period.

Grease-proof Boards. One of these should be given to each child for Plasticine work, as ordinary wooden boards absorb the grease and make the Plasticine less workable.

Potter's Clay

The use of clay is sometimes objected to by the busy teacher, because, she says, there is no time to keep it in condition. But, if she knows how to take care of it, a few minutes, every time after use, is all that is needed.

Clay is bought in bulk, by the pound, and should be broken up into small lumps while it is still in a moist and workable condition, so that it may be kept moist easily. A large bulk is difficult to manage, for while the outside absorbs the moisture, the inside will become quite hard. It should be kept in a zinc bin, or large stone jar. Zinc-lined boxes are made specially for the purpose, or a small dust-bin is excellent. If the clay is always returned to its bin, in smallish lumps, at the end of a lesson, and covered with a wet cloth, all that remains to be done is occasionally to pour in a little water and leave it to saturate the clay. A wise teacher will arrange for a course of modelling covering several weeks, during which time the clay is easily kept in working condition. Then put it right away for a period.

When the clay is not to be used for some time it should be put out of doors to be dried, and purified in sun and air, and then put away in small pieces. If kept all the year round in a damp bin, it becomes musty and gives out an unpleasant odour. When it is needed again, the clay will need preparing, and should be broken up and left to become saturated with water for several hours.

The Advantages of Clay. In the first place clay is cheap, and can be used in large quantities. Secondly, models may be dried and kept, and if desired, taken home.

Other Modelling Mediums

Waxes. There are several kinds of modelling wax on the market, and though too expensive for general school use, they are useful for special occasions. The wax is clean to use, can be procured in a range of delightful colours, and can be made plastic by merely warming in one's hands. When the model is made, it will set quite hard.

Papier mâché is useful for making such things as relief maps, or any large articles which do not need intricate modelling. Delightful bowls

can be made with it, dried and coloured by the older children.

Here is a way in which papier mâché can be prepared with the children's assistance—

1. Tear a quantity of newspapers into little scraps. A class of children could do this in a very short time
2. Place all the scraps of paper in a large receptacle, and cover with water. Leave this to stand for four or five days
3. Then strain off the water. A mass of pulp will remain. Add a little flour, and knead the mixture until it is of the consistency of clay and workable.

This papier mâché can be used for making all kinds of objects on a large scale; it sets quite hard, and takes colour beautifully.

Tools for Modelling

Little children of four and five years should not be given any tools to work with, since all the first exercises may be performed with the hands, and in so doing provide an opportunity for that muscular activity so important in the development of the child. Later, when the use of a tool is felt and needed, a wooden modelling tool, with one end flat and sharpened, and the other curved (Fig. 18), will be all that is needed.

A wooden meat skewer is quite a good tool for making surface markings, and a flat piece of wood, such as the smooth side of a butter pat, may be used for patting and shaping large masses of clay.

The clay may be cut into pieces either with a large knife kept for the purpose, or a wire cutter like that used for cutting cheese (Fig. 19). Needless to say, these last-named implements should be used only by the teacher.

Preparations for the Modelling Lessons

When clay is to be used for the modelling class, each desk should be covered with a sheet of stout paper. The paper may be cut to fit the desks and used for many lessons. Oilcloth is

ideal for this purpose, because it lasts well and can be washed. Where much modelling is done, it is well worth a little initial expense, and often the children can bring small remnants of oilcloth from home.

It is well, too, and takes but a few minutes, to put sheets of newspapers on to the floor beneath the children's desks—a little clay is almost bound to be dropped in spite of care. The newspapers can be picked up carefully by the children at the end of the lesson and thrown away. Overalls should be worn whenever

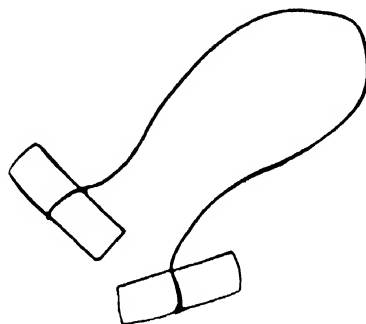


FIG. 19

Wire Cutter for Cutting Clay

possible. These are often kept at school, or the children bring them on modelling days.

Modelling for the Tinies

The child of four years will spend an enormous amount of energy in the fashioning of his clay. He will pound it and pummel it, roll it and pinch it, break it into pieces and join it up again, and think nothing of destroying in a second that which has taken many minutes to make. Thus, the satisfaction in mere activity!

While the children are engaged in this way, they may work out their ideas to illustrate stories or nursery rhymes. They will not, at first, make any attempt to copy the form of any object, but will be content with breaking the clay into various lumps, each representing part of the story. But, however crude the results are, the educative value of expression is there, and these first activities are a preliminary to the child's later studies, when play develops into work.

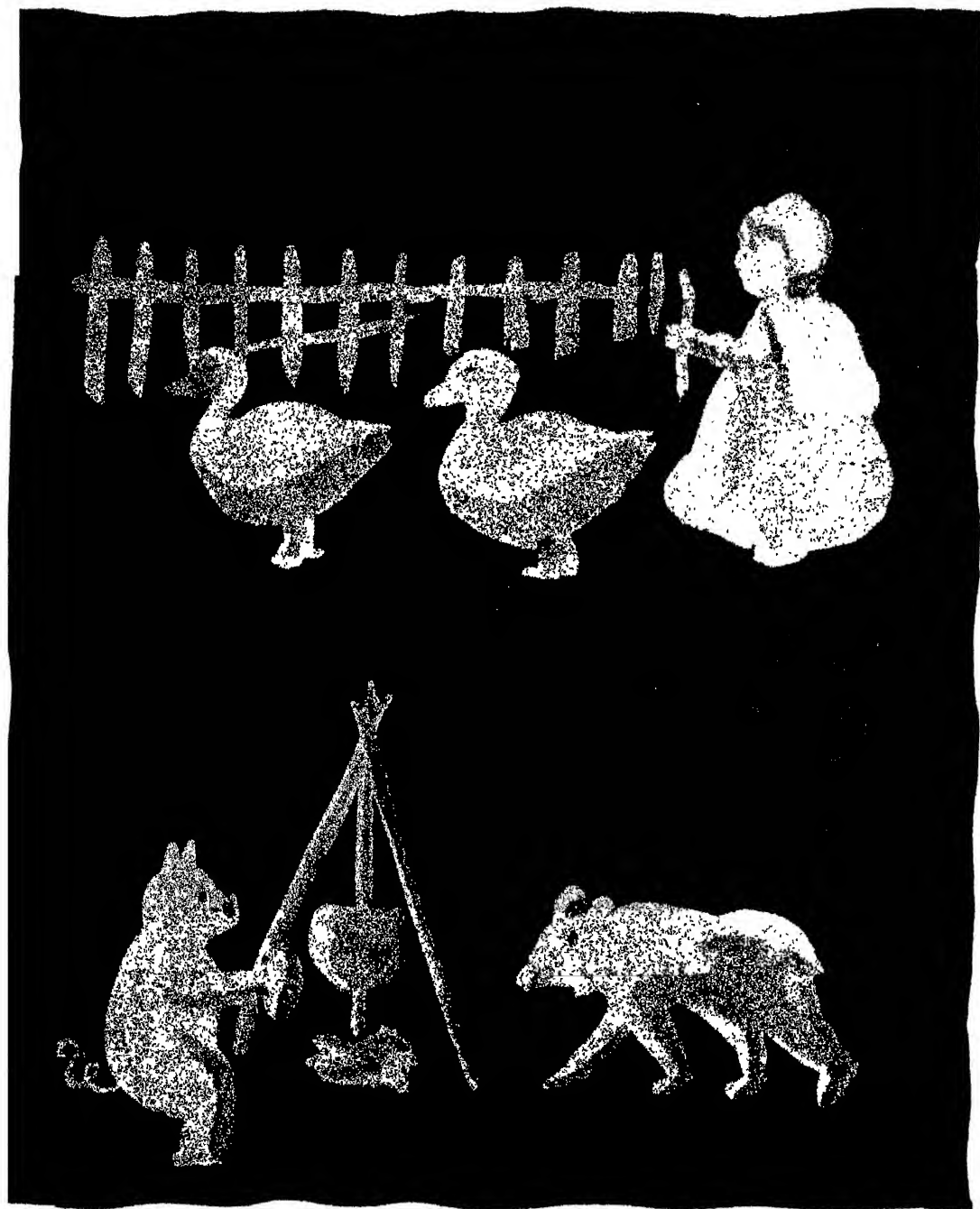


FIG. 20

Illustrations in Clay

(1) *The Goose Girl.* (2) *The Little Pig and the Wolf*

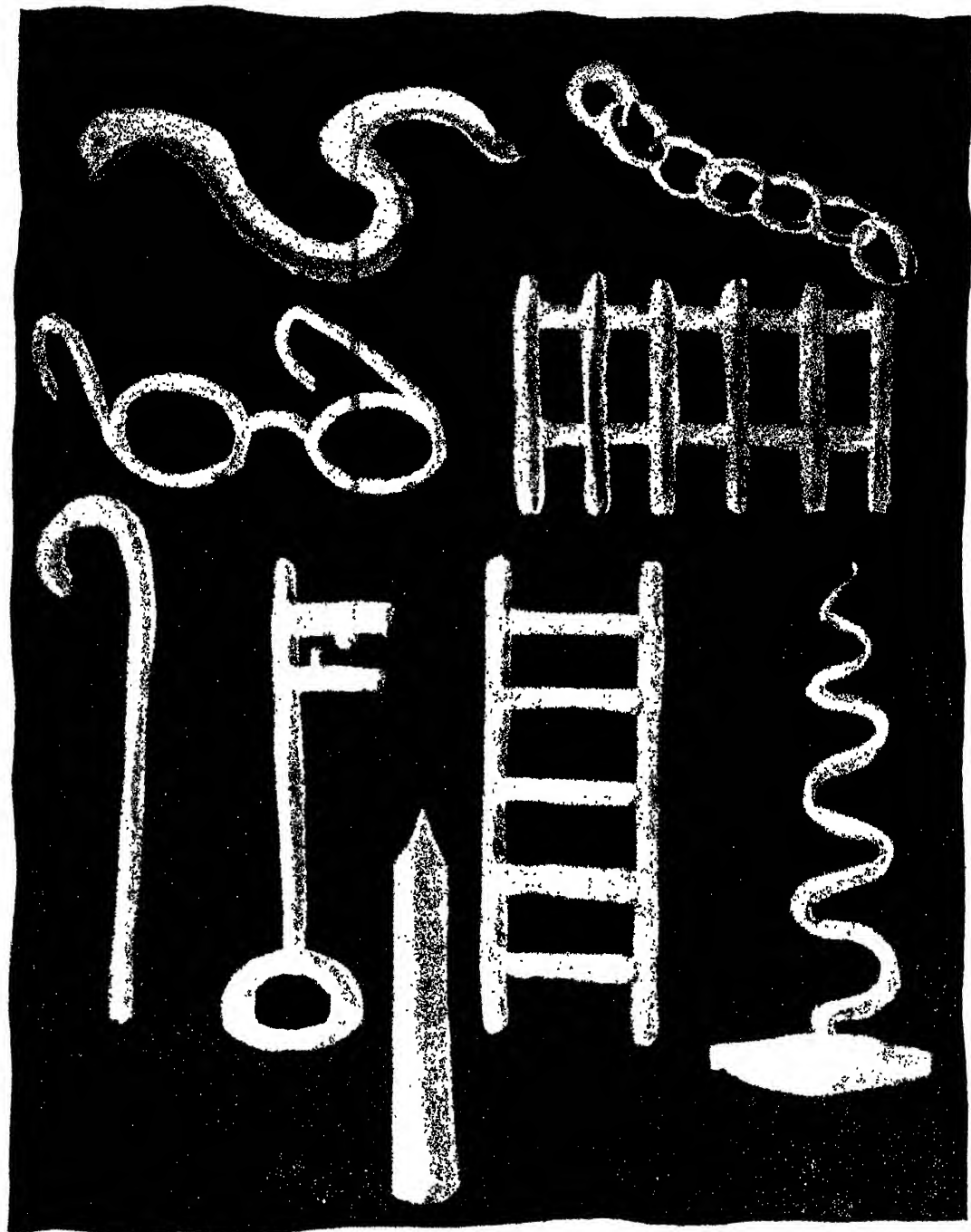


FIG. 21

First Exercises in Rolling and Twisting

Helpful Examples

A good example put before the child is of great value in helping his development. The teacher should work with the class, and work out the children's ideas in a simple way which will be readily understood, so supplying a good model as an incentive to them.

For example, a class was once busily occupied in making a bowl. So was the kindergarten mistress. Finally, the bowls were finished and the children held theirs up. The mistress held her bowl up too, and the children saw immediately how much smoother and better-shaped it was. Immediately they all returned to work on their own, pinching here, smoothing there, trying to make theirs like the teacher's.

Methods employed in teaching the babies are play-ways. Plenty of free expression work should be given, and some preliminary exercises in rolling, pinching and measuring.

Work for Children of 5 Years and Over

As the child develops, he will pay more attention to "form," and the first attempt at producing shapes of things is to pinch and pull a solid lump into the required shape.

Since the general form, avoiding all detail, is the basis of all good work, this method is a good one.

From about five years of age, the child's powers of observation should be developed. Free expression work should be under the careful guidance of the teacher, and constant attention should be drawn to correct observation of the object being modelled. What the children are to model must be left to the teacher. There are so many thousands of things to choose from. The chief thing to bear in mind is to give bold, simple forms to model in the early stages, gradually leading up to those that are more intricate, and *always* to use Nature as an inspiration.

When a story is being illustrated, or a model which includes several objects is to be set up, it will sometimes be found that better results can be obtained by having the children work in groups. For instance, in modelling the story

of "The Three Bears," one child could make a table, another the bowls and spoons, three children the chairs, and three others, the bears. If two or three of the best workers or eldest children are included in each group, they will be of great help to the others.

First Exercises

Rolling and Twisting. Fig. 21 shows several examples of objects that can be made from a roll of clay. A long roll is one of the easiest things to make, and may be twisted into all kinds of shapes such as a snake, a ladder, a chain, a fence, a catherine wheel, a walking stick, a pair of spectacles, and countless similar models. Again, the rolling exercise may be allied to that of pressing.

A Ball Foundation. Another method of beginning modelling is to make a ball of clay. This may be pressed into the formation of an apple, or other fruit, or used as the foundation of an animal's body; or it may be hollowed, to give the form of a bowl or cup (Fig. 22).

A good first exercise is to let the children make numbers of small balls in various colours, for marbles, or to string up into a necklace of beads (the holes may be made with a knitting needle). Again, the balls may be converted into eggs by a little gentle pressure. Fig. 22 shows numerous examples of models which can be made.

Building in Easy Stages

When an object is set as a copy to be modelled, the children should be allowed to handle it and look at it from several points of view. One of the most common faults in a beginner's work is that breadth and the third dimension are not realized. It is far easier to realize the shape of a thing by feeling it, than by merely looking at it.

Then, sometimes, it is not advisable to model a thing straightaway from a solid lump of clay. Instead, the article should be analysed and divided up into proportions. (See Figs. 24 and 28.) Here are several examples of flowers and animals that have been built up piece by piece; a number of simple forms, which put together make an intricate and delightful whole.

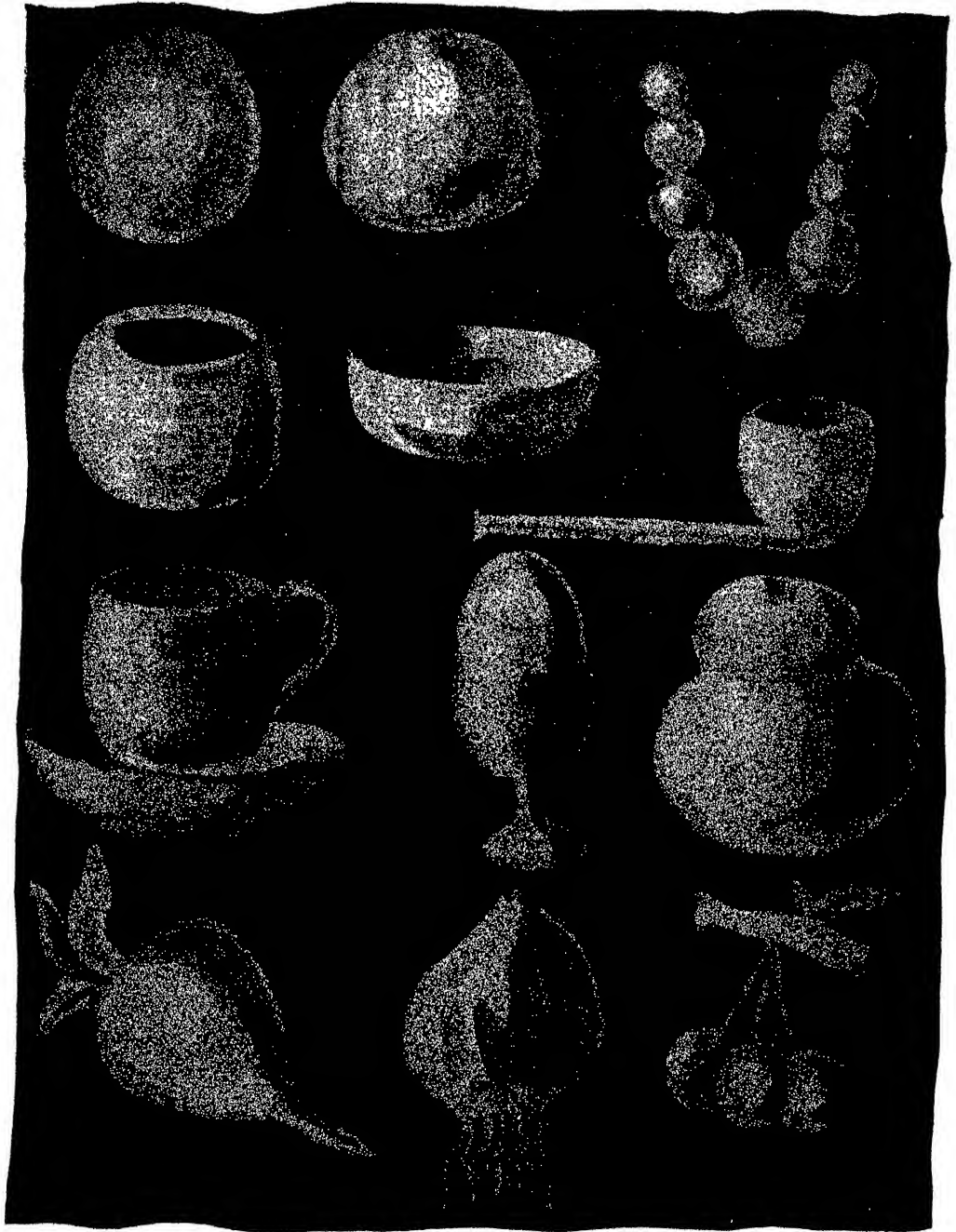


FIG. 22

Objects Made from Ball Formation

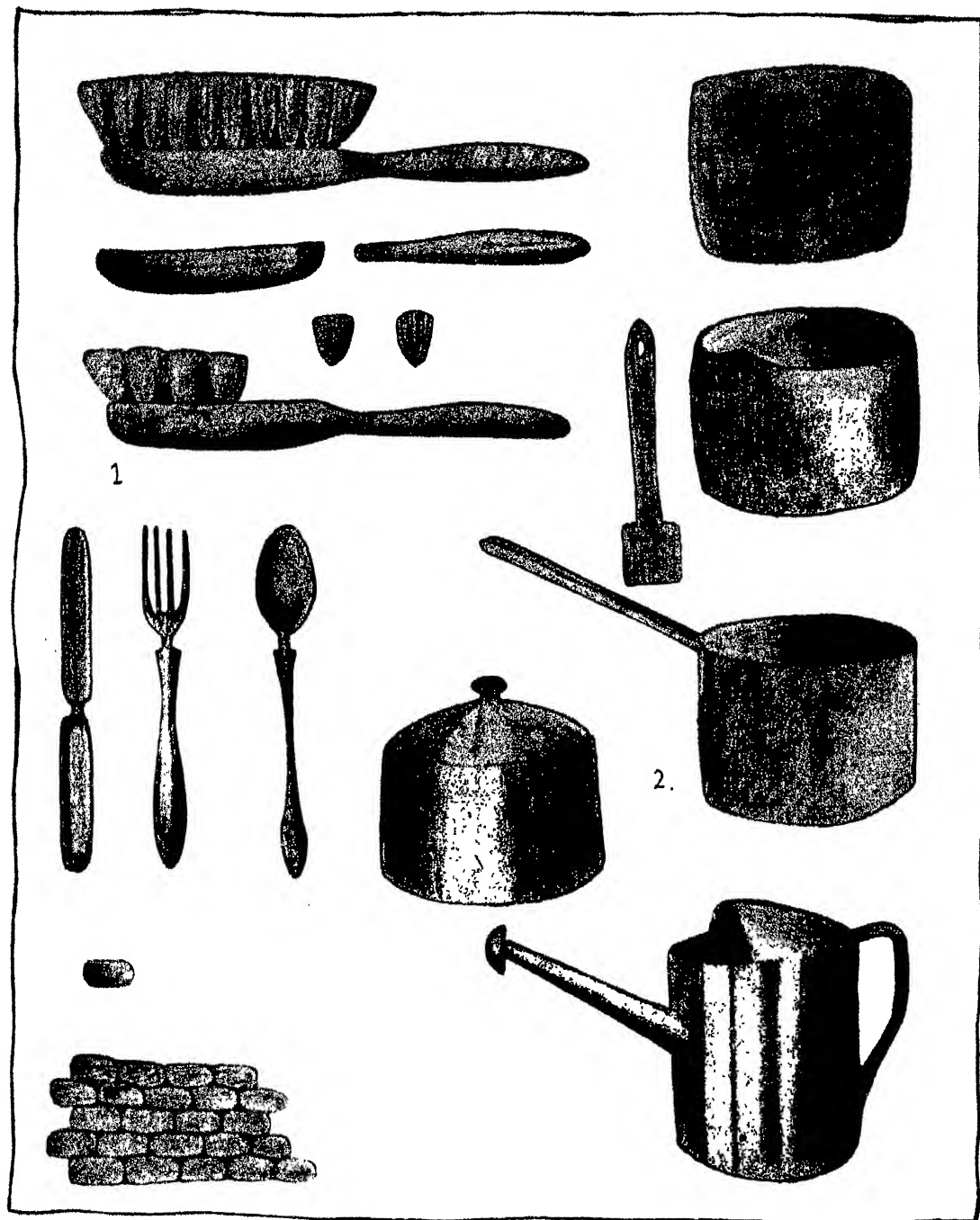


FIG. 23
Some Common Objects for Modelling

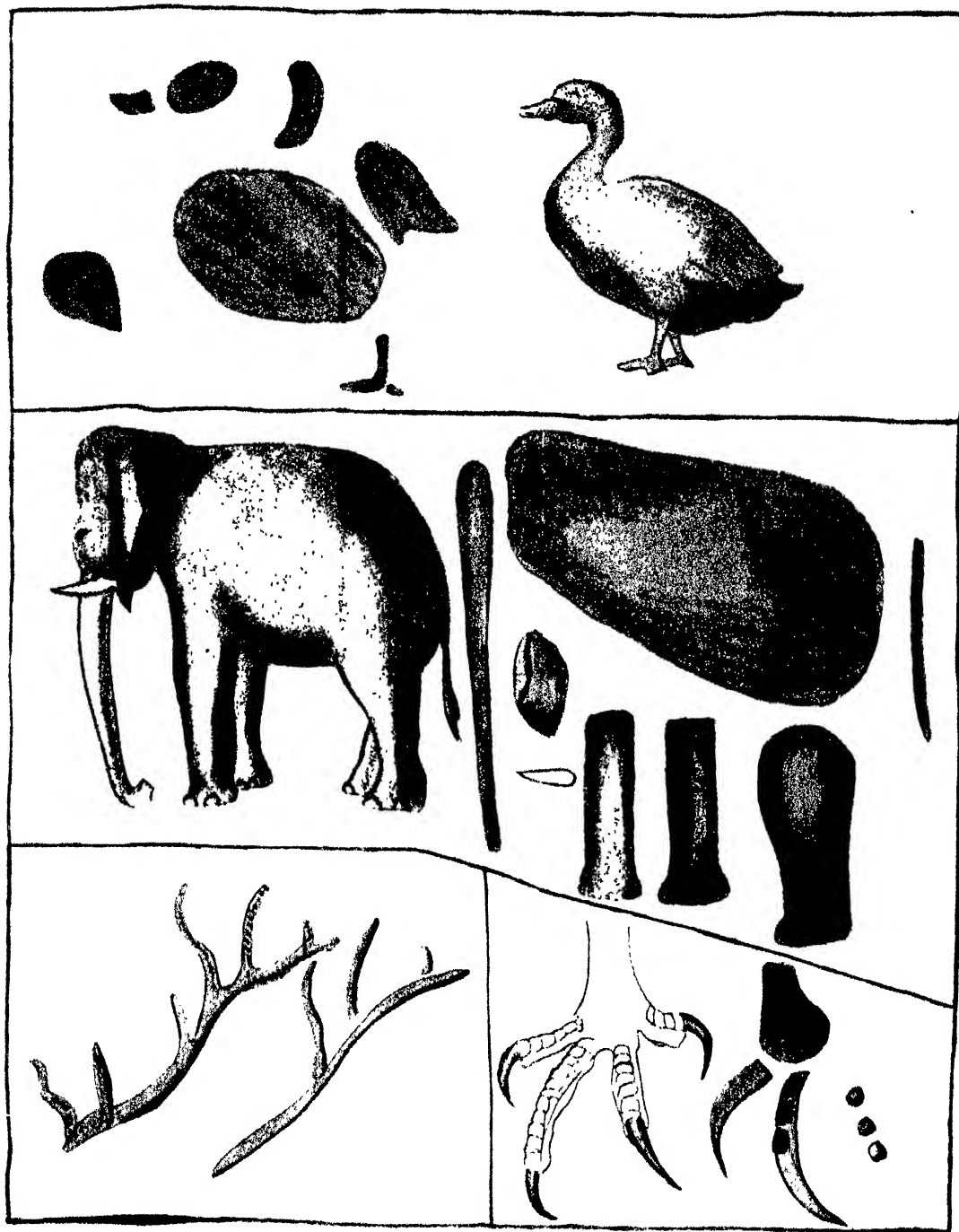


FIG. 24

Modelling in Easy Stages

This method cannot be bettered as a means of Nature Study, for a whole plant may be dissected and built up in clay.

Armatures or Framework

A professional modeller always uses an armature, or framework of metal and wood, and works his clay on to this, thus having a foundation for proportion and size.

This gives us an idea for the children's little models of animals and people. Look at the Giraffe in Fig. 25. How could any child be expected to support the weight of Mr. Giraffe's body on such long thin legs, if they are to be made merely of clay. It isn't possible.

It may be argued that, in any case, such an animal is too difficult for little fingers. Yet the children would love to make him, and also others. They delight in trying to model a whole zoo, or the contents of a Noah's ark, and this may be executed very successfully by working by group methods. Here is a way in which a small framework can be made on to which the animals may be built.

The Giraffe (Fig. 25). Take a small block of wood or a cork, for the body part, and round this wind a piece of wire, leaving four lengths for the legs. The hind legs should have the longest pieces of wire, because they have a bend in them. Another length of wire is put on for the neck, and another, very small, cork or piece of wood is wound on for the head. Stand the little framework up, and bend the legs and neck into the characteristic position of the giraffe.

Now it is ready for the clay to be modelled on.

Finishing Touches

A little armature of this kind may be made by the children themselves. When the animals are finished, beads or buttons may be put in for eyes, while tusks may be represented by pieces of match stick, or chips of wood. Small fine twigs may be found to use for antlers, and bristles from old brushes for whiskers.

The wire used for this purpose should be strong enough to support the weight of the model, and yet pliable enough to be bent and broken. Sometimes it is advisable to use a double piece. If these animals are made of white clay,

they may be allowed to dry and then coloured with enamels, or oil colours.

This method of modelling on to a framework should not be employed by the very little ones, but many animals of the small stumpy variety, or those that may be modelled in sitting position, like the tortoise, bear, rabbit, squirrel, elephant (Fig. 24), may be attempted by the very youngest. A delightful model zoo can be made with many animals. Houses and enclosures could be made in another handwork period, and gardens laid out with shrubs and sand upon a large tray.

In the same way tiny armatures can be made for models of people. These should be fixed to a small stand (Fig. 26). The armature may be bent to represent various actions like the "stick men" which are made up of lines that suggest matchsticks (Fig. 32).

Nature Modelling

Plasticine is best to use for modelling leaves, fruit, flowers and stems, because it is so pliable, while clay is inclined to chip and break as soon as it hardens.

Again, where building-up methods are employed, and under the teacher's guidance each petal, stamen and leaf are made separately, Plasticine is easier to model and put together.

After making the model of a plant, it will be noticed that the child will make a far better brushwork drawing of it, and render the growth of it more truly.

If the nature specimens are modelled in colours, they will look more real, and also assist in the more careful observation of various parts. This, however, should be done with coloured Plasticine; painted clay looks unnatural, and is really only suitable for decoration as pottery.

Modelling in Relief

There are two ways of modelling from plant life, either "in the round," or in "relief," arranging the model on a plaque or tablet of clay.

The first thing to do when modelling in relief is to make a tablet upon which to build the model. This is done by taking a piece of clay, about the required size, and beatening the edges

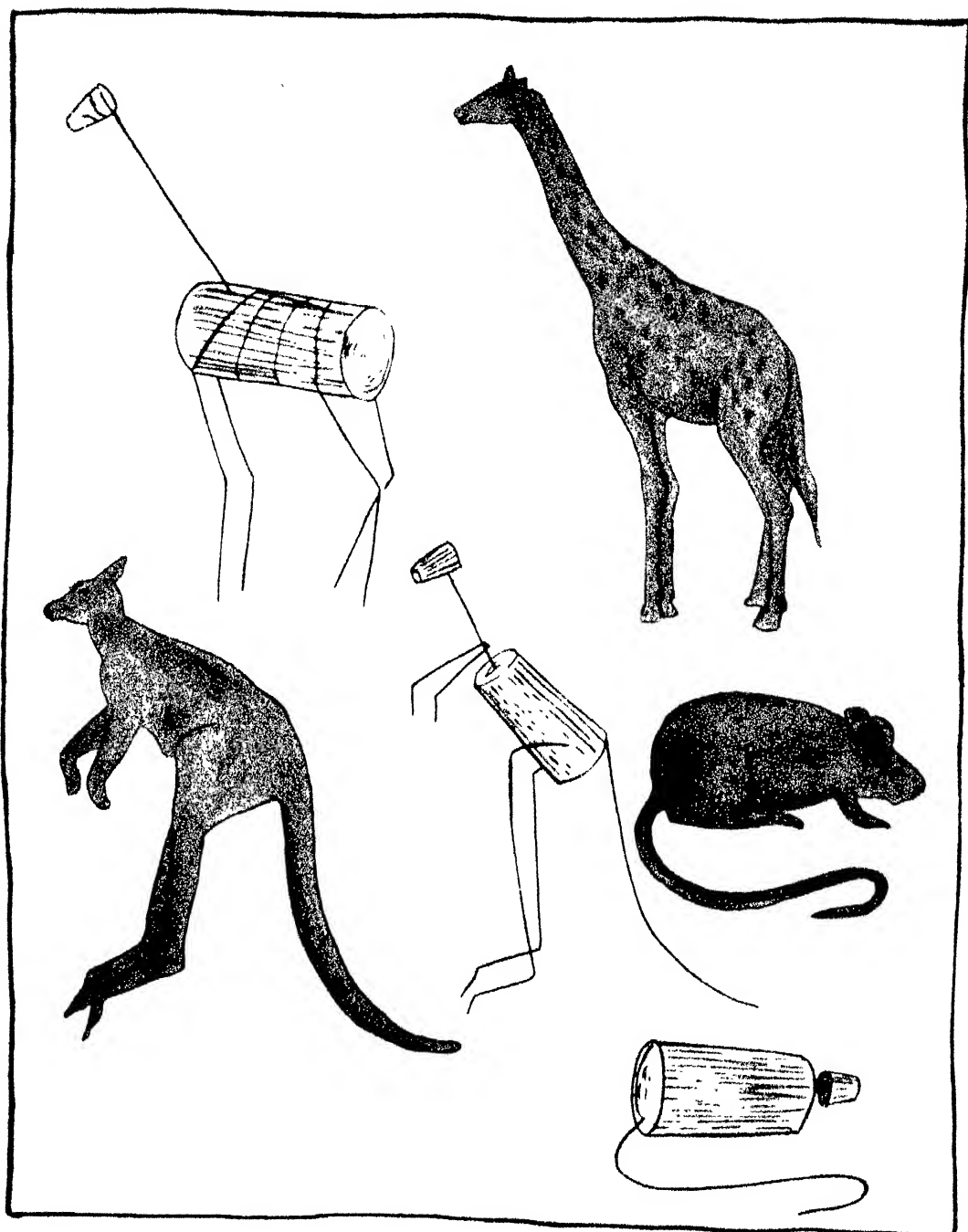


FIG. 25

Framework Made from Corks and Bent Wire, on which to Build Models

with a "flattener," or straight piece of wood. Then the hollows should be filled by pressing small pellets of clay into them with the thumb. If the tablet is to be fairly thin, and not very large, it should be built up entirely of these pellets pressed together with the flat of the thumb.

When a plaque of equal depth has been formed,

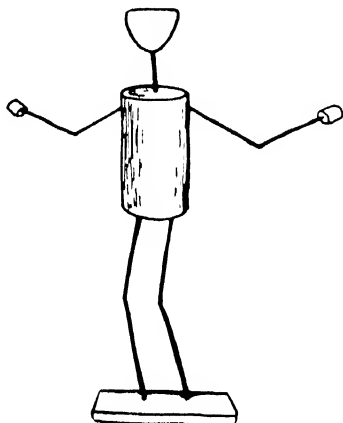


FIG 26

Armature from Bent Wire and Corks

the next thing to do is to draw upon it, with a fine point, the direction of the main stem, flowers, or leaves, as the case may be, and then to place the modelled plant piece by piece upon the tablet. The leaves and flowers should *not* be pressed down on to it, but should follow the turns and twists of the natural specimen (Fig. 28).

When models of larger bulk are made "in relief," they should be built up upon the plaque by adding pellets of clay until the required depth is reached, and not modelled separately before placing on the plaque, as the stems and leaves are done.

It is permissible, sometimes, for the younger children to place their natural specimen upon the plaque and draw round it, before modelling. This will help them to get the right shape of the leaves, etc.

Characteristics of Growth

Whatever specimen is chosen for the modelling lesson, the teacher should always direct the

children's attention to its chief characteristics. Left to themselves, the majority of children will work too rapidly, after a glance or two, without noting the "differences" of plants, or any peculiarities of growth.

This may be proved by giving out plants, and allowing the class to model them without any guidance or suggestion, and then taking the

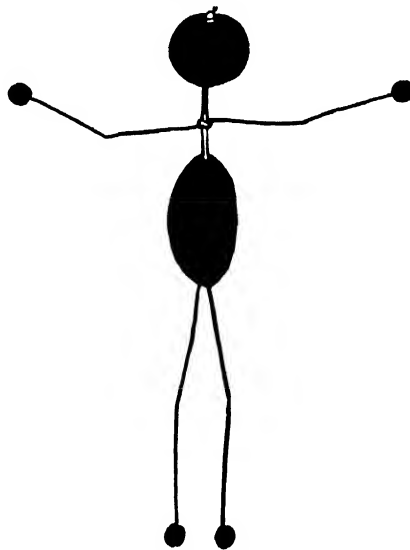


FIG 27

Armature of Beads and Wire

same plants and giving a lesson as the children work. The difference between the first and second attempts will be astonishing.

A Lesson in Plant Modelling (Fig. 28)

This is a suggestion as to how to proceed with such a lesson—

1. The teacher points out how the plant stands up, and asks the children to tell her where the main support is. Is it thick or thin? Curved or straight? The children model it.
2. Children observe how smaller stems grow out of the main stem. Are they as thick as the main stem? How do they join? Look at the joining part very carefully, and tell me what you see. Do the stems grow upwards, or outwards? The smaller stems are modelled.
3. Now look at the leaves. Have they stalks to them? How many grow together? What shape are

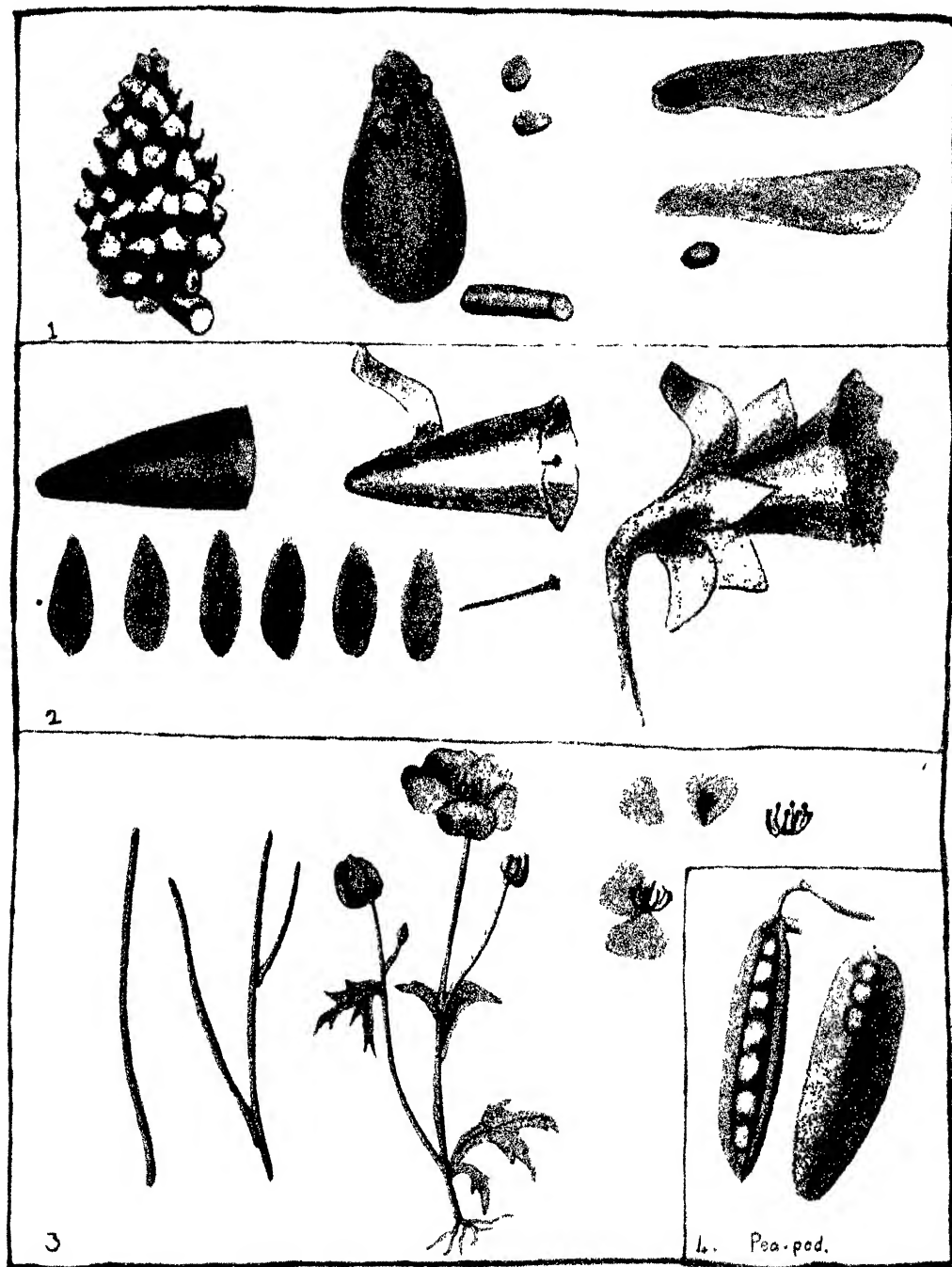


FIG. 28

Modelling in Sections

(1) *Fir Cone and Sycamore Wing.* (2) *Daffodil Modelled in Sections.* (3) *Buttercup Modelled in Sections*

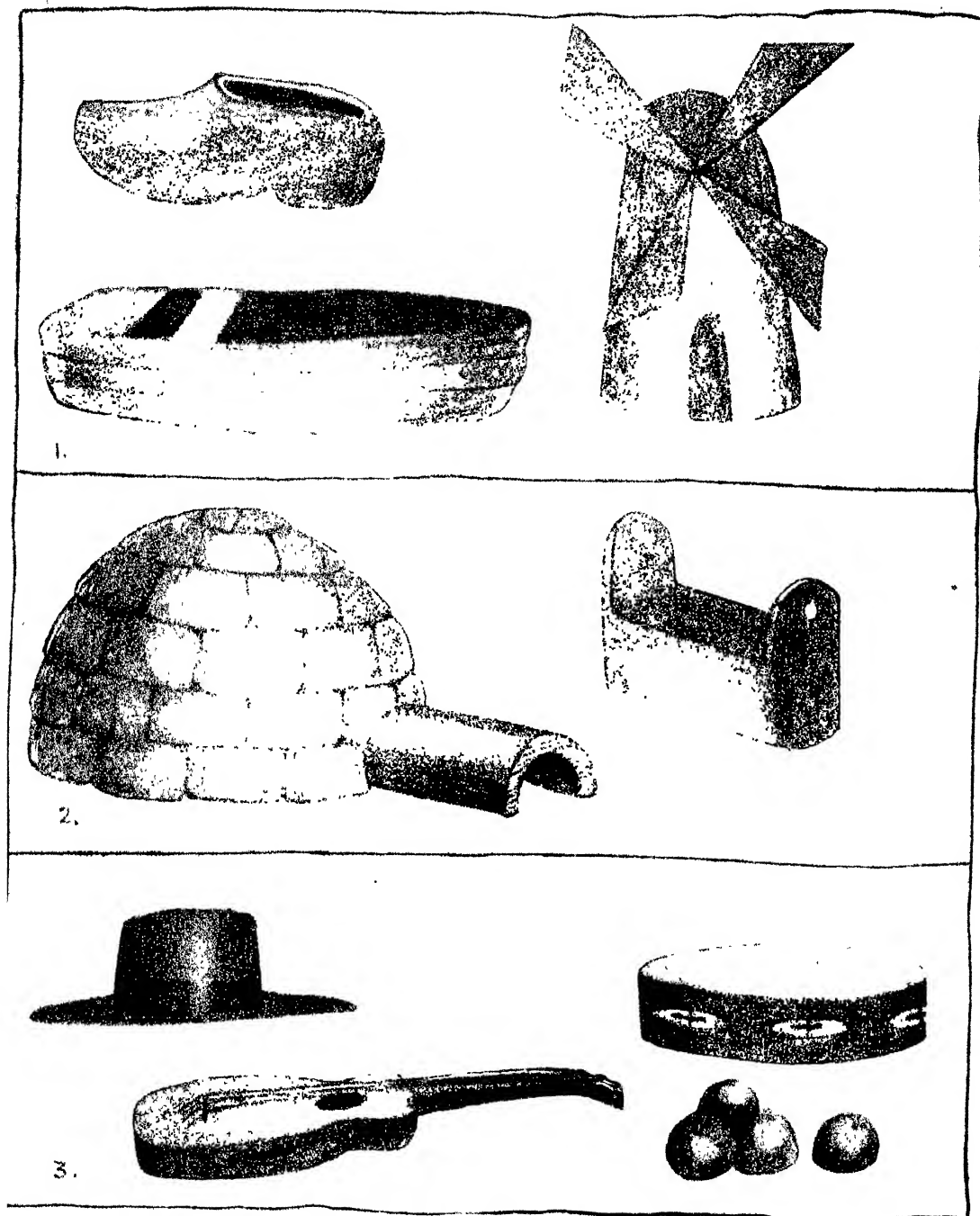


FIG. 29

Modelling in Connection with Geography Stories

(1) Sabot, Barge and Windmill from Holland. (2) Eskimo Ice House and Soup Kettle. (3) Toreador's Hat, Guitar (strings of cotton), Tambourine, and Orange from Spain

they? Are they thin and delicate? Or large and thick? The teacher should tell how the leaves breathe through little pores, and anything else about the particular leaf in question. When everything has been noted, the children model the leaves.

So, each separate part is studied from the buds to the roots, as they are modelled, and the children learn *what* to look for.

The most artistic children will see these things more readily than others, and their work will

be made in clay, and so give the child an actual tangible model to illustrate the lesson. (See page 744, *Construction of Land and Sea Models*.) Many little town children have never seen a mountain or a lake; many, even, have seen practically nothing of the country, and therefore cannot visualize things that are beyond their experience. In these cases, more than ever, such models have great value.

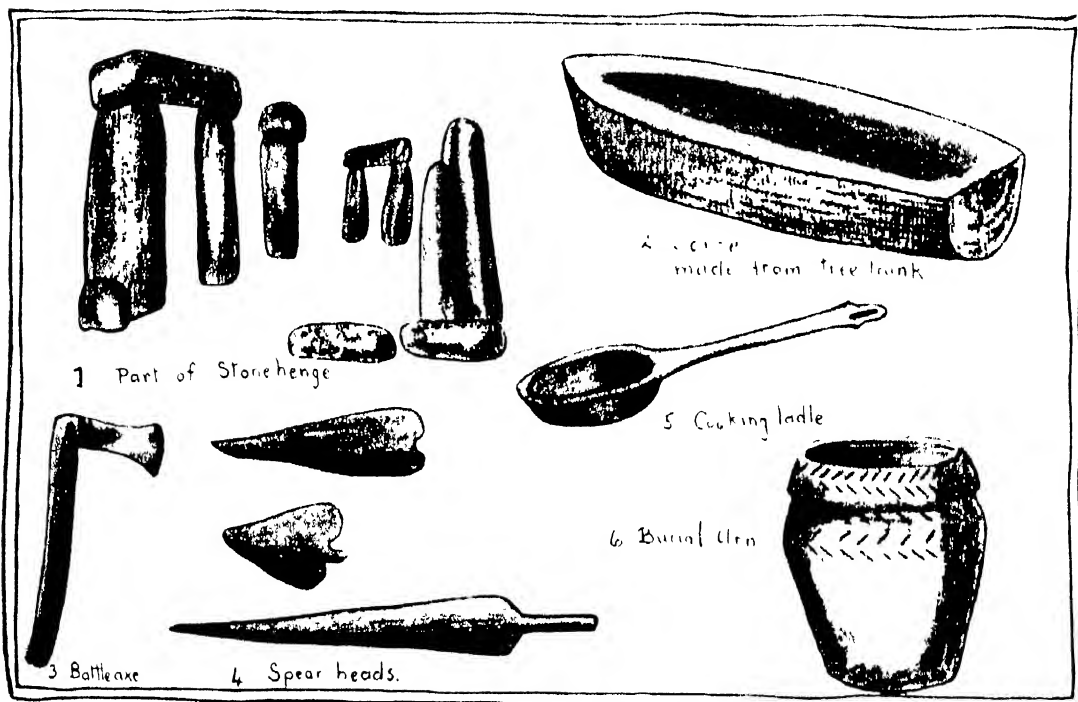


FIG. 30

Modelling in Connection with History Stories

always show more "life" and a greater understanding of the beauty of growth.

Correlation to Geography and History

The use of coloured Plasticine is invaluable in the teaching of Geography, both to the kindergarten and to more advanced students.

The very beginning of Geography is to learn something of the formation of land, the meaning of plateau, peninsular, island, mountain, valley, plain, river, lake, and so on. All of these can

When building-up mountains or hills, it is advisable to commence by putting stones or small boxes as a foundation, and covering them with clay—this saves using a large quantity of Plasticine.

Blue paper may be used for water, and green for valleys; this also saves using more Plasticine than is actually necessary, and is also cleaner.

Map Making

The first map-work usually attempted is for the children to fill in the towns and rivers on

to a hectographed copy of the teacher's map. The children will love putting in the mountain ranges with brown Plasticine—it is far more real too, and gives a greater suggestion of height than chalked-in mountains can do, besides helping them to realize their position and comparative heights.

It is not enough for the teacher to make a model. Each child must make his own, if any

which will help the child to remember facts and visualize life as it was in times gone by.

Fig. 30 gives several examples of flint heads, spears, axes and implements used by the Early Britons. If the teacher obtains good pictures of these and similar examples, and shows the children how to model them and how they were used, considerable interest will be added to the history lesson. There is scarcely anything that

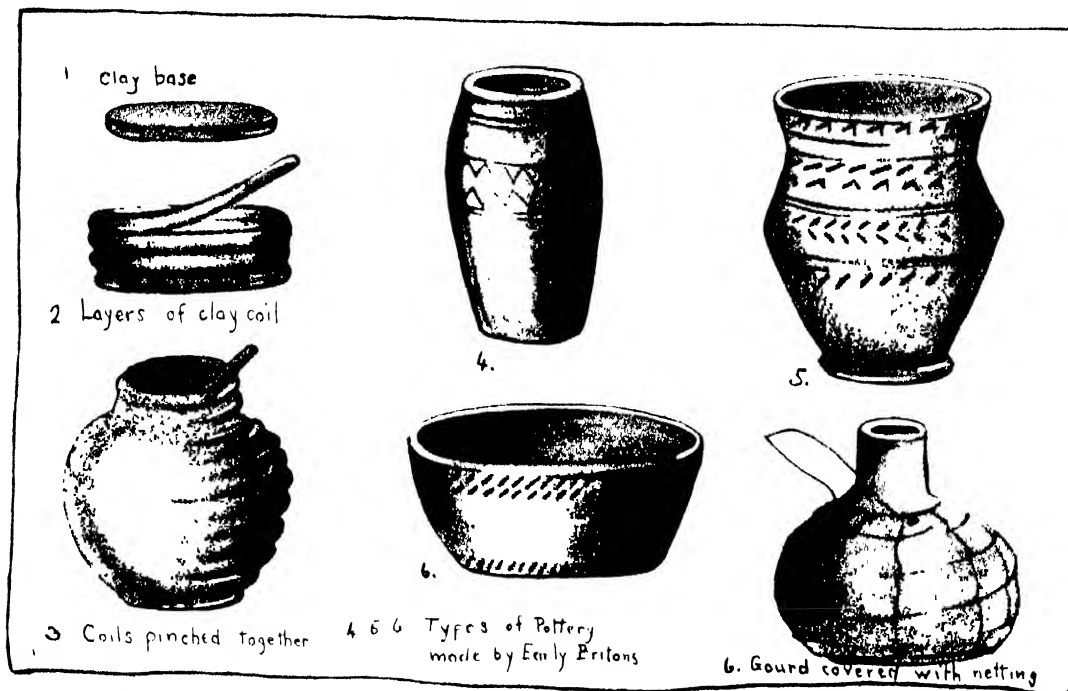


FIG. 31

Modelling in Connection with History Stories

lasting impression is to be made. Once the child has modelled these physical features, he will *never* forget them.

Then a great deal of interesting work has been done by children in the modelling of homes and things used by people in other countries, the Eskimo village being a great favourite.

Modelling and History

The teacher of history will know for herself all the delightful things that can be done with modelling, connected with history. Almost all history stories lend themselves to plastic work,

cannot be modelled—their headgear, pottery, implements of war, cave-homes, boats, cooking utensils, and even whole scenes of primitive life, may be depicted in clay. Fig. 30 also shows a model of Stonehenge, made in connection with stories about the Druids. Many other examples will occur to the teacher as she goes through her History Scheme.

Pottery Making

The making of vessels and primitive pottery is always fascinating to the child, and gives a good insight into the potter's craft, since it is

possible to carry out the whole process of modelling, firing, and colouring.

Before beginning the modelling of any pottery, the teacher should tell the whole story of how the first pots were made (*see* page 635), and how it was discovered that clay hardened when baked, so that vessels could be made which held water. In fact, the modelling period should form part of the history period.

The first method of making a bowl is, as mentioned already, by fashioning a lump of clay into a ball, and then hollowing it out and pressing the sides to get them even.

There are two other methods: (a) a round plaque may be formed, and the sides then added piece by piece, or (b) the "coil" method may be employed.

The coil method is the best to use for any pottery form that has a narrow neck and widens

out towards the bottom. Fig. 31 shows the exact procedure in building up the coils. Before each layer is added, the top of the last one must be moistened with water to make it adhere. As the vessel is built up, the coils must be pressed together to form the wall of it, especially in the case of a narrow-necked vase, for, once this is built up, it is impossible to get the fingers into it.

As a special treat, the best of the children's work might be fired, so that it can be kept and possibly coloured or glazed. This may be done in a home-made kiln at school, or in a furnace, or it may be sent away to be baked at a pottery (at the owner's risk).

It is possible to paint designs on to small pieces of pottery with ordinary water-colours, but the best method is to use glazes, which run down in the firing to make beautiful colour effects.

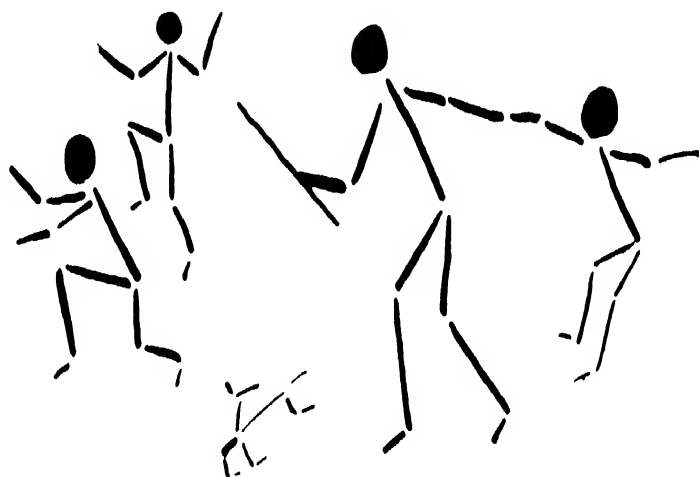
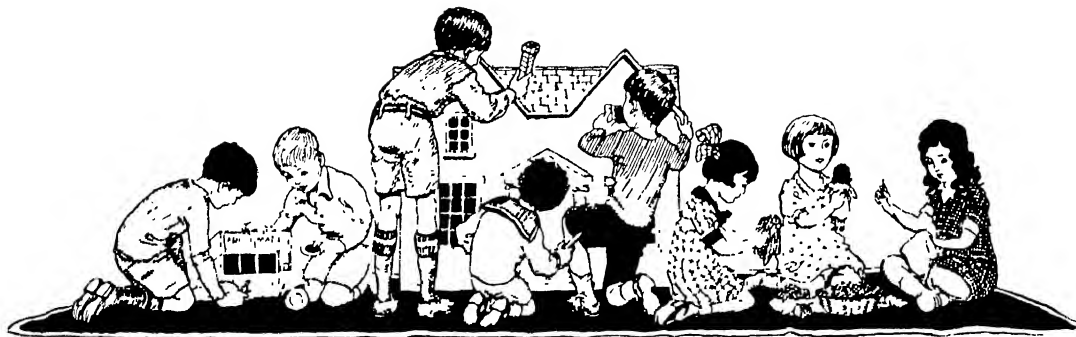


FIG. 32. Match-stick Figures



PAPER MODELLING

THERE are two distinct groups of work in Paper Modelling. Firstly, free work, including tearing, twisting, crumpling, rolling, tying, and simple folding; and secondly, model-making involving accurate measurement, by means of folding, or with the aid of a ruler, pencil, and set square.

The babies should only be given free activities, and cannot be expected to do work demanding accuracy. After considerable practice in paper folding and manipulating soft paper, work of both the free and the accurate type should be included in a graduated scheme of work.

The illustrations (Fig. 33) give a few suggestions for the many models and toys suitable for the babies' class, which can be made from tissue paper, crinkled paper, and our old friend the wall-paper book.

Cutting and Twisting

A Popular Toy (a). Numbers of coloured streamers afford an exercise in cutting straight, and are fastened to a roll of stiff paper, or a stick.

Plaiting and Twisting (b). This is one of the first exercises given to the little ones, and there are many uses to which it can be put. (See Fig. 33 *b* and *c*.) The whip is made from three strips of soft tissue paper (so easily handled by little fingers), twisted and knotted at the end, then plaited, and finally fastened to a strip of wood, or tightly rolled strip of stiff paper.

A Paper Windmill fastened to a stick in the same way is an old favourite, but always new to the child, and these three easily made toys give great satisfaction because they may all be

used and made to move. The fact that something is being made, which will actually work and have movement, such as small carts and vehicles with wheels, windmills, kites (Fig. 33 *g*), tents (Fig. 33 *h*) and animals, and which can be used in playtime, adds considerable interest to the handwork lessons. It is a great mistake to give small children any exercise in handwork that is merely an exercise and nothing more.

Folding and Rolling

Folding and rolling paper is also good practice for little fingers, and serves as preliminary exercise in measurement without demanding great accuracy.

A Stairway (Fig. 33 *d*). A strip of paper, folded first one way and then the other, will make a stairway. Great care should be taken to keep the width of folds the same all the way along the length. Many models will suggest themselves to the teacher, using the same principle.

The simplest fold is a square of paper folded in half, or in three, to form a screen. Numbers of folded papers will make a little book and all kinds of interesting little books may be made which can be used for various subjects.

Parchment Scroll (Fig. 33 *e*). All kinds of scrolls may be made by rolling strips of paper. The one illustrated here could be made during a history lesson. It might have a red seal and tape attached to make it more realistic.

A Catherine Wheel (Fig. 33 *f*) made from a long narrow strip of paper folded over and over crosswise, and then rolled round and fastened

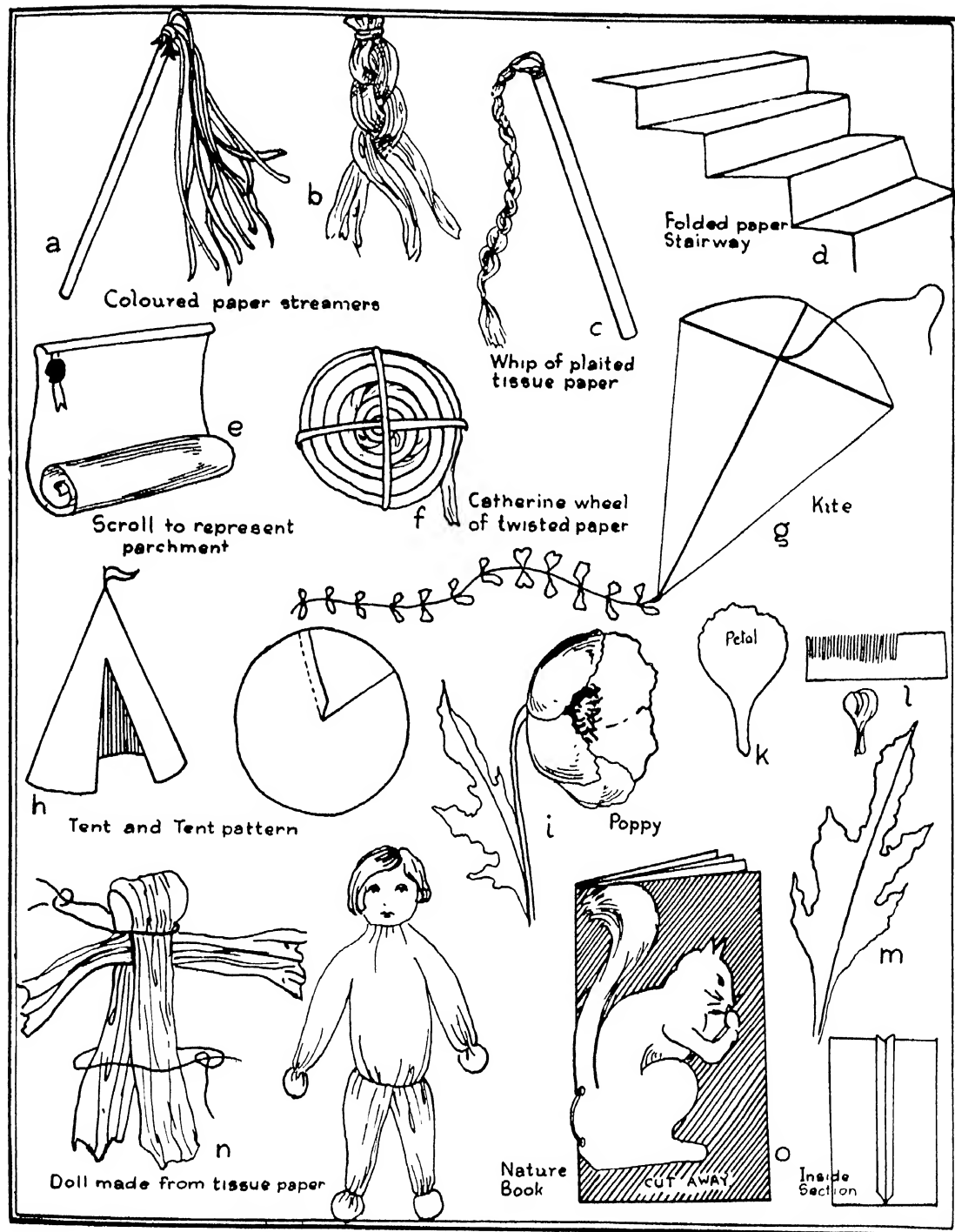


FIG. 33

Paper Modelling Work for the Tiny Ones

with pieces of thread. In the same way fire lighters can be made, which will take the place of wood.

The Nature Book (Fig. 33 o) illustrated here is made with several folds of white paper inside a brown paper cover. A strip of paper is sewn down the middle to give strength. The children should be told to pencil in dots to show where their needle is to come through—this will ensure the stitches being even. Then a pattern of a squirrel may be handed round the class. One pattern can be shared between several children, and after drawing round the outline, the whole book is cut out. The whiskers, eye, and nut may be put on to the cover with crayons.

In the same way little books may be cut into the shapes of birds, animals, houses, trees, and so on. A blotter can also be made into a book formation with two or more sheets of blotting paper folded in half, and a decorative cover made with paper cuts, stencilling, or freehand drawing in crayons.

Soft Tissue and Crinkle Papers

The Doll (Fig. 33 n) is made from one long strip, folded over for the head, body, and legs, and a shorter strip threaded through for the arms. The features may be drawn in, and the

hair either drawn or made from wool or silk. The older children could dress these little dolls in coloured crinkled paper costumes, to illustrate their history lessons. If a piece of fairly stout wire is rolled into the paper, it will be found that the legs and arms may be bent into any position.

Crinkled paper has dozens of possibilities, but perhaps flower-making is the most attractive, and the flowers can be put to good use for decoration for school parties or concerts.

The Poppy (Fig. 33 i) is made like this. First make a little ball of green paper, with a screw at the end. Wrap round this a short strip of black fringed paper, wire them together, and leave the two lengths of wire firmly twisted together to form the stalk. Now cut out five red petals (*k*) and flute the edges. The petals can be shaped by stretching the middle of each very carefully. Finally, fasten the petals round the centre with thin wire. A long crossway strip of paper, from which every vestige of elasticity should be removed by pulling and smoothing, is required to wrap the stalk. The leaf (*m*) should have a length of wire rolled with green paper and gummed into position down the centre. Other flowers may be made in the same way. If a real flower is taken to pieces, a pattern can be cut from its various parts.

CONSTRUCTION WITH PAPER AND CARDBOARD

MODEL making with paper and thin card (thick cardboard cannot be successfully managed by very small fingers, or without the aid of a knife) will teach children to measure, rule, and cut in a far pleasanter, and much surer, way than by grappling with figures. Model making is closely associated with arithmetic.

With all kinds of formal construction work, it is advisable to show the class a finished model before the children begin to make their own. If they can see exactly what they are making, they will in all probability discover the next stage in making before it is given out. This enables the child to think for himself. A model that is made stage by stage, under the teacher's directions, means that the teacher is doing all the thinking and it loses its educational value.

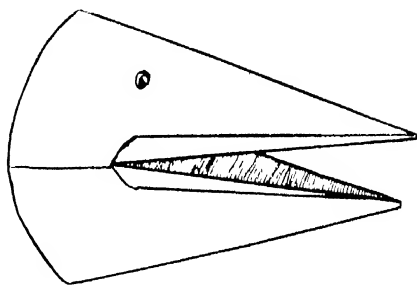
Many models may be made by folding paper only, without cutting at all. The Japanese have reduced this to a fine art, and make really clever and intricate models. Only a few suggestions are given.

Fig. 34 shows how to make a quaint crocodile's head—a sure favourite, for he opens and closes his very large mouth by gentle pressure each side of his head—and also a pig's head (Fig. 35). These two folds form a basis for other animals' heads, which can be varied by a turn of the ear or nose, and a different eye.

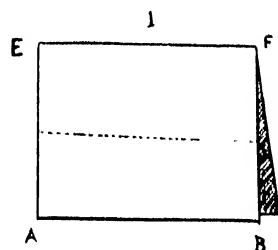
The same formation is used for the magician's hat as for the Chinese pagoda (Fig. 36). Here the magician's hat is made in three different sizes, and mounted upon a circular box, with a door cut from it. This little model is a very attractive one to colour.

Ground Forms

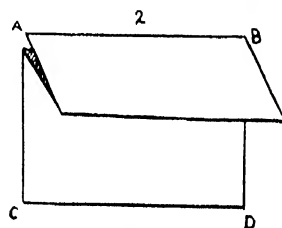
The accompanying illustrations give the easiest ground form of sixteen squares which may be made into many types of boxes, and also the formation for a house, barn, shed, church, and many pieces of furniture.



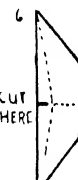
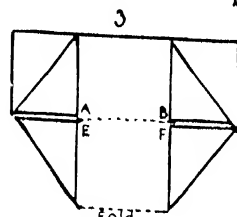
(1) Fold in half



(2) Fold back at dotted line



(3) Fold down corners AB and CD



(4) Turn over and fold down corners CD (5) Fold again down centre (6) Cut $\frac{1}{2}$ in on dotted line (7) Fold back from cut edge to corner

FIG. 34

The Crocodile's Head

The ground form of a square folded into either sixteen or thirty-two squares may be turned into countless models with a little experiment.

The sentry box (Fig. 39), piano (Fig. 41), and windmill (Fig. 40) all involve measurement, or the windmill may be cut from a pattern of one side, which can have a pencilled outline repeated five times. Further suggestions for models in either cardboard or paper are shown in Figs. 38 and 42. The hall chair is made from a square of stiff paper folded into sixteen small squares. Cut along the black lines, and cut out the shaded parts; then fold at the dotted lines. Models shown in Fig. 42 are for the more advanced children only.

A *Ruler* can be made, showing inches only, on a thick strip of card, and this may be used for all preliminary exercises in measurement—the making of such a ruler is very helpful in teaching the principles of measurement.

It is very important, when giving instructions for making a model, to take one stage at a time, not to hurry the children, and to wait for the slower ones, so that the class may work together. It is confusing both to the teacher and child to give out different instructions several times over. When some practice has been attained, the children may be allowed to make models of their own, and to work at their own rate.

An Example

The children should not, however, depend entirely on instructions and guidance. It is often a good plan to show them a finished model and then suggest that they make their own. If sufficient models have been prepared, a "group" of about four children may be allowed to take it to pieces, in order to see how it is built up. They can then prepare their own ground forms from measurements they have made themselves. This develops their powers of observation and imagination, and stimulates independent work and thought.

Let them begin with the simplest models, such as the sentry box (Fig. 39) or windmill (Fig. 40). Successful attempts are encouraging. Older children should be able to construct their own models without any assistance from the

teacher whatever, but such models should always be of objects with which they are thoroughly familiar.

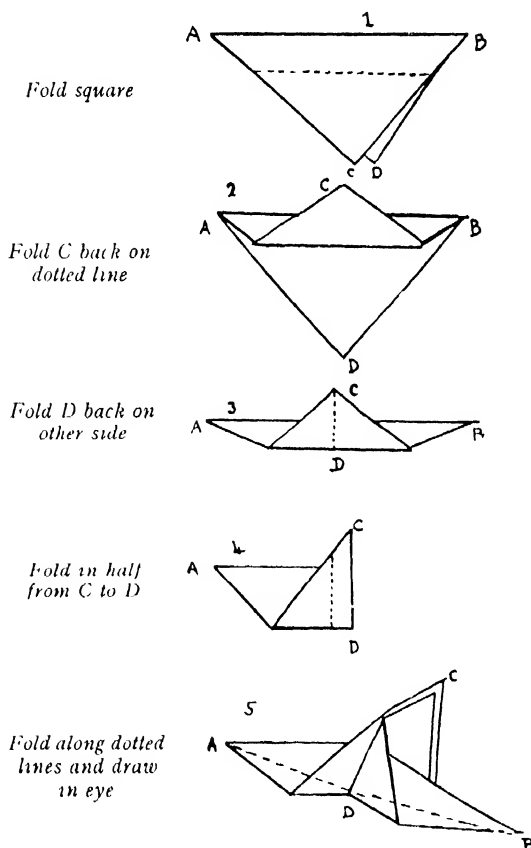
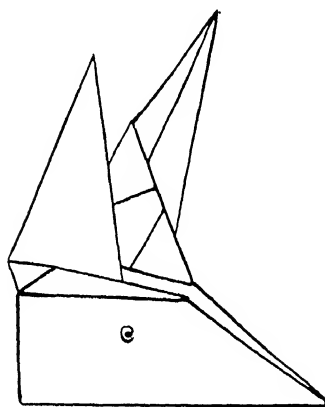


FIG. 35

The Pig's Head

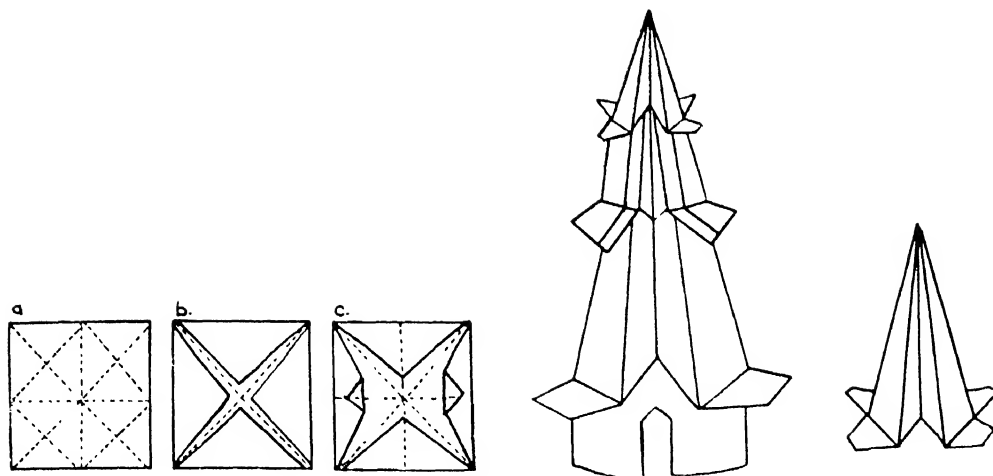


FIG. 36
The Chinese Pagoda and Diagrams for Folding

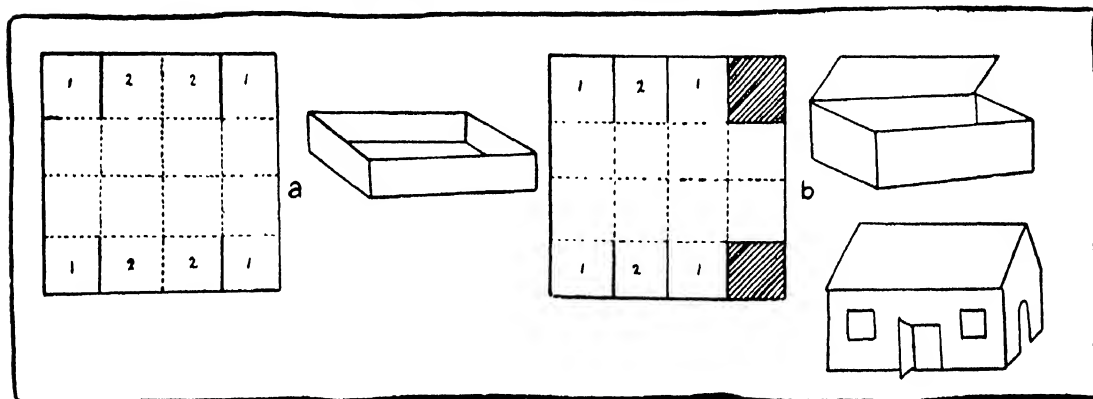


FIG. 37
Construction Lines for Box or House

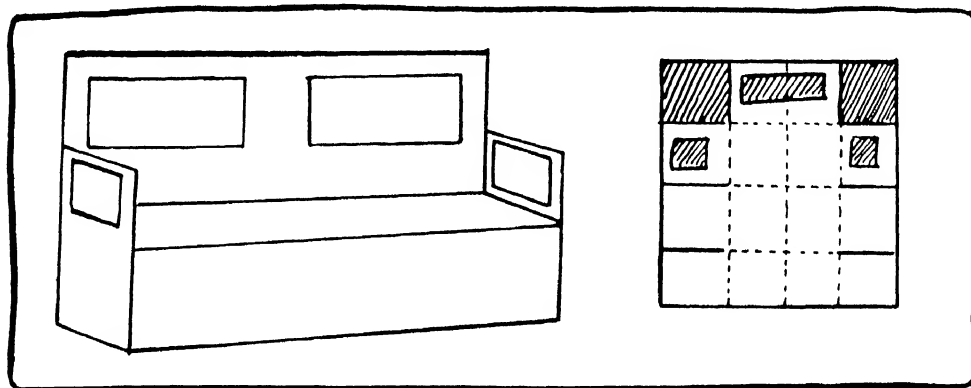


FIG. 38
Hall Chair or Bench

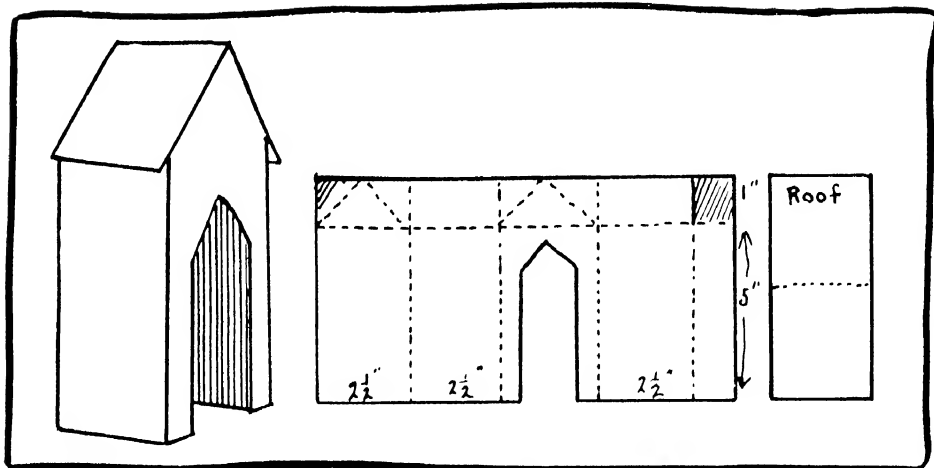


FIG. 39
A Sentry Box

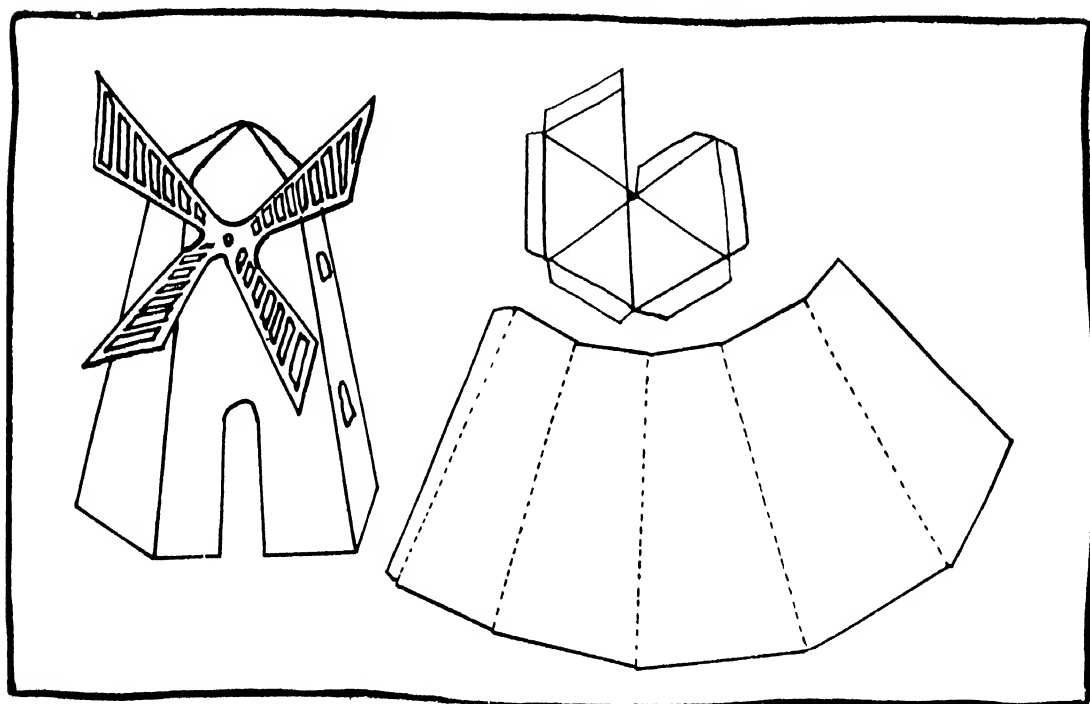


FIG. 40
Construction of Windmill

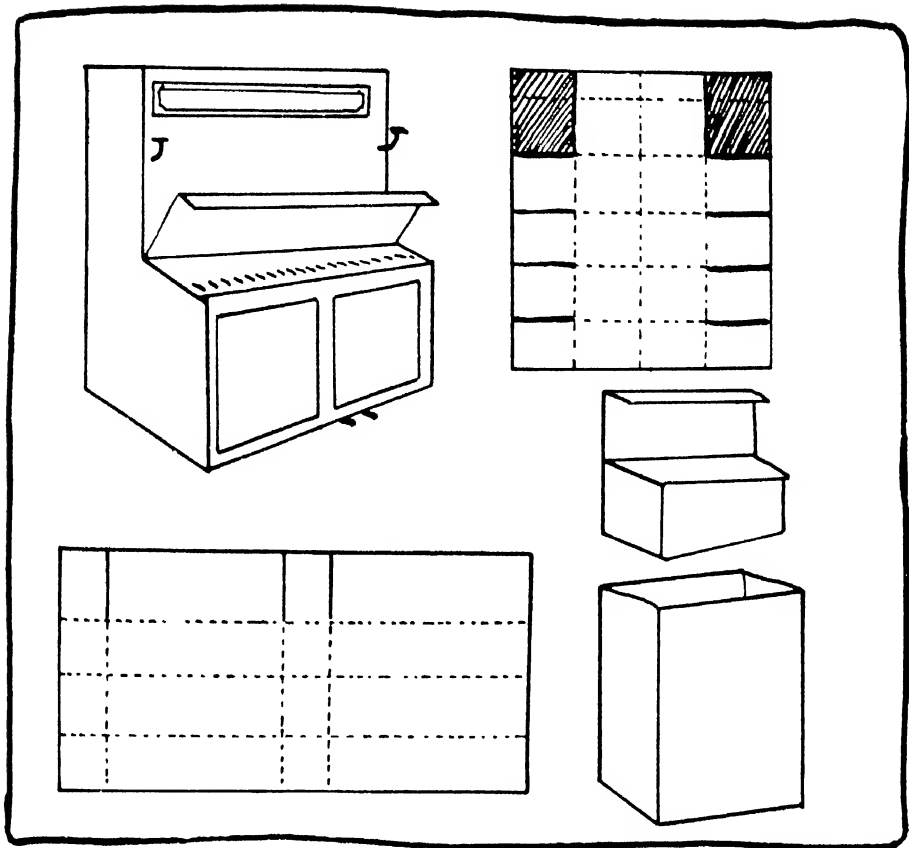


FIG. 41

Cardboard Construction of Piano

(Children should be given cardboard on which construction lines are already indicated)

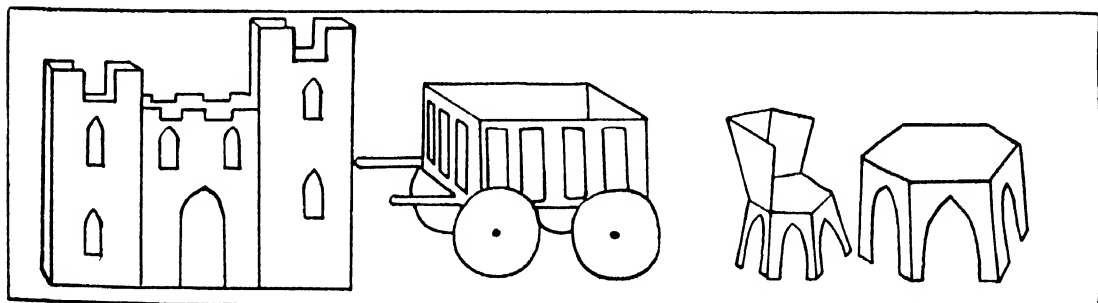


FIG. 42

Cut Paper Models

RAFFIA WORK

R'AFFIA work is particularly well suited for young children, because of the ease with which raffia can be manipulated, its effectiveness, and the fact that a piece of work can be completed in a comparatively short time.

Young children are seldom able to persevere long with one piece of work. If it takes too long, they lose interest in it. Many useful objects can be made quickly and easily with raffia, so that the child can learn to *finish* what he has begun, and know the pride of having made something, all by himself, which is both pretty and useful.

Raffia is cheap, and it can be bought in a large number of lovely colours. It gives opportunity for the teaching of colour and discrimination, and combining of colours, in which the child should be allowed freedom of choice. It also gives practice in early efforts at needlecraft, because it does not involve eye-strain—as with fine threads and silks; the needle does not easily come unthreaded, and a considerable area can soon be covered.

The canvases used in connection with raffia work have a very large mesh, afford excellent practice in running straight lines, in elementary design, and above all, in neatness.

Raffia work for young children can be classified under four headings—

- (a) Winding.
- (b) Sewing.
- (c) Weaving.
- (d) Plaiting.

Coiled basketry is not included in work for beginners, as they would require too much assistance, with the preparation, from the teacher.

(a) Raffia Winding

This is the most simple of all raffia work. It only means winding raffia over and over a cardboard foundation, until it is entirely covered. The raffia should be of good quality, slightly damped, and the strands kept as open and flat as possible during the winding. If dyed raffia is

used, it is supple enough and requires no damping.

Serviette Ring. This is perhaps the easiest example on which children can begin. Each ring requires a $1\frac{1}{2}$ in. length of postal tube. One end of a strand of raffia is gummed to the inside, and the strand is then wound over and through the tubing, taking care that each layer overlaps the previous one by about one-third of its width, as Fig. 43 *a*. In Fig. 43 *b* we have a more advanced method of starting. The first strand is placed in a slanting position on the outside of the tubing (shown by dotted lines) and the winding taken over it as before.

There are two ways of finishing: (1) By running the end in, with a needle, behind the strands of raffia. (2) By gumming the end down on the inside of the ring.

Fig. 43 *c* shows the finished serviette ring threaded with ribbon or coloured raffia.

Variations can be made by winding with strands of raffia of different colours, e.g. four turns of buff, four of blue, as in Fig. 44 *b*.

These rings can also be made from strips of cardboard scraped thin at both ends (Fig. 44 *a*), and sewn or glued together. This, however, is not so satisfactory, as it is difficult to bend, without cracking, cardboard which is stiff enough for this purpose.

Table Mats

These can be made from cardboard discs 6 to 8 in. in diameter, with a hole in the centre, $\frac{1}{2}$ in. diameter. As before, the end of the raffia is gummed down and the strand brought through the centre and passed over the outside. This is continued until the whole of the cardboard is covered. In order that the strands may radiate properly from the centre, there must be a greater overlap there than at the circumference (Fig. 45). Continue the winding until the centre hole is filled.

Squares, oblongs, ovals, hexagons, octagons, and other fancy shapes can be treated in the

same way. The various shapes can be cut out by older children, or by the teacher, as they are far too difficult for young children to make. In the same manner, the older children can sew the covered rings, or shapes, together to form useful articles or decorative patterns, such as the fern pot cover, sewing bag, and serviette

two similar cardboard discs, approx. 3 in. in diameter, with a centre hole 1 in. in diameter, and wind in the same way as for table mat, but without fastening the beginning or the end (Fig. 49 *a*). Hold the end, and cut round between the discs with scissors (Fig. 49 *b*). Tie a strand of raffia or ribbon as tightly as possible between



FIG. 43

Napkin Rings which the Tiny Ones Can Make

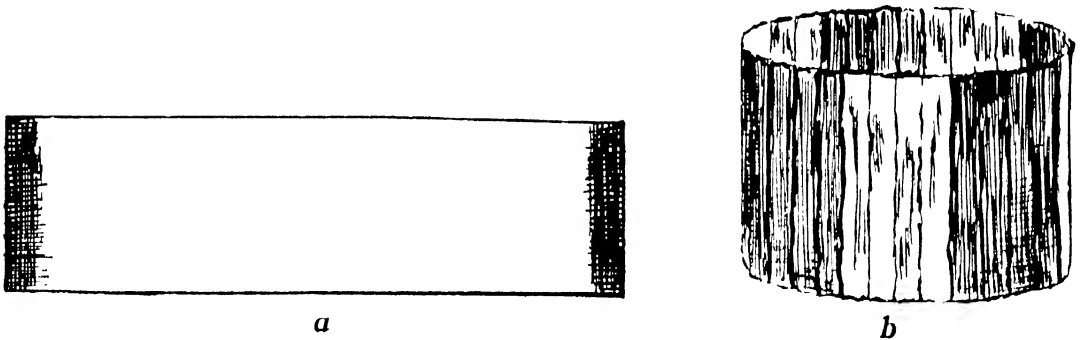


FIG. 44

Showing Strip of Cardboard and Finished Napkin Ring

ring (small rings tacked together), photo frame, string container, and fancy mats, which are illustrated in Figs. 46 and 48. Decorative stitchery to contrast with the body of the mat, as shown in Fig. 45 *b*, plaiting in Fig. 45 *c*, and beads in Fig. 45 *d* may be added. Both of the latter are sewn round the edge.

More Difficult Work

Raffia Balls—Pom-Poms, etc. Method: Take

the discs (Fig. 49 *c*). The ball is completed by tearing, or cutting away discs (Fig. 49 *d*), when the strands will be found to close up and conceal the tying.

Using Flat and Tubular Bases Together

The following suggestions are useful: Paper stand, trinket box (Fig. 50 *c*), hair-pin box (Fig.

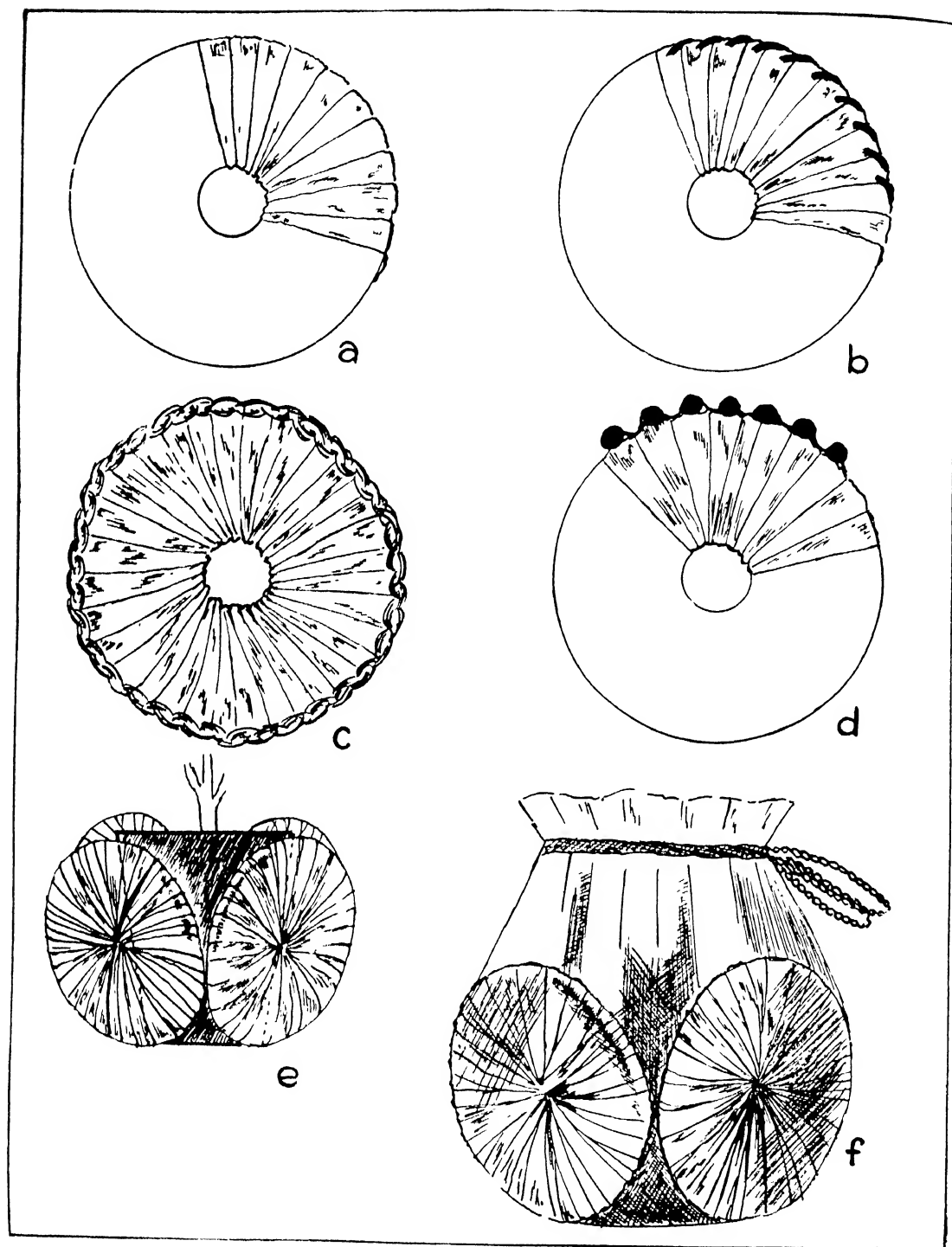


FIG. 45
Discs Covered with Raffia to be used as Mats or as Decoration

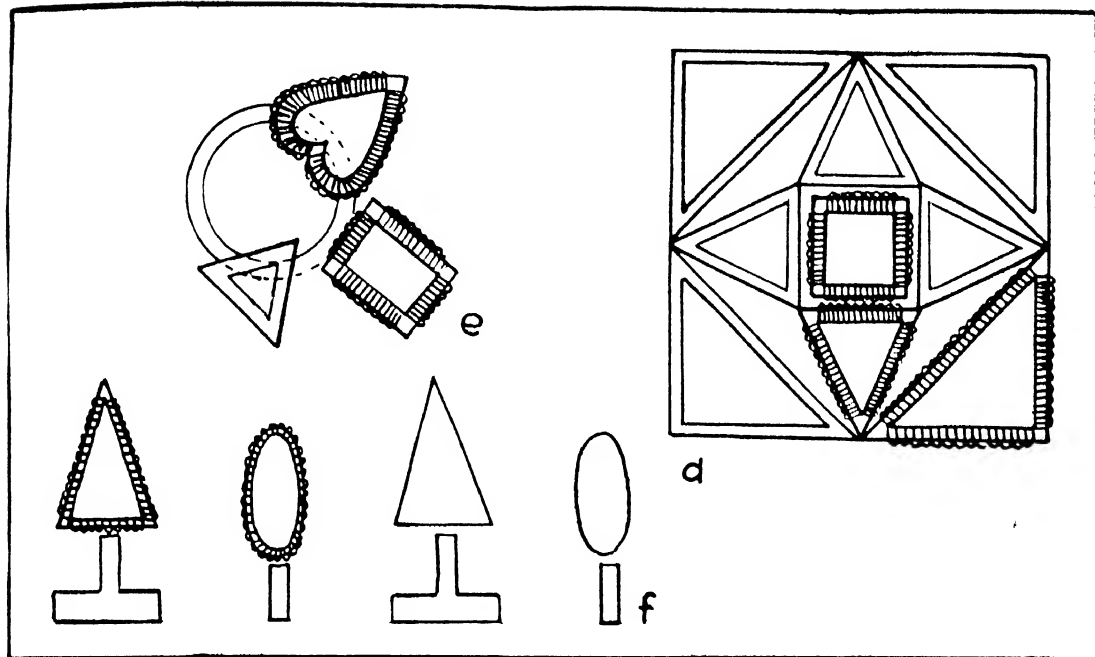


FIG. 46
Shapes Covered with Raffia to use for Decoration

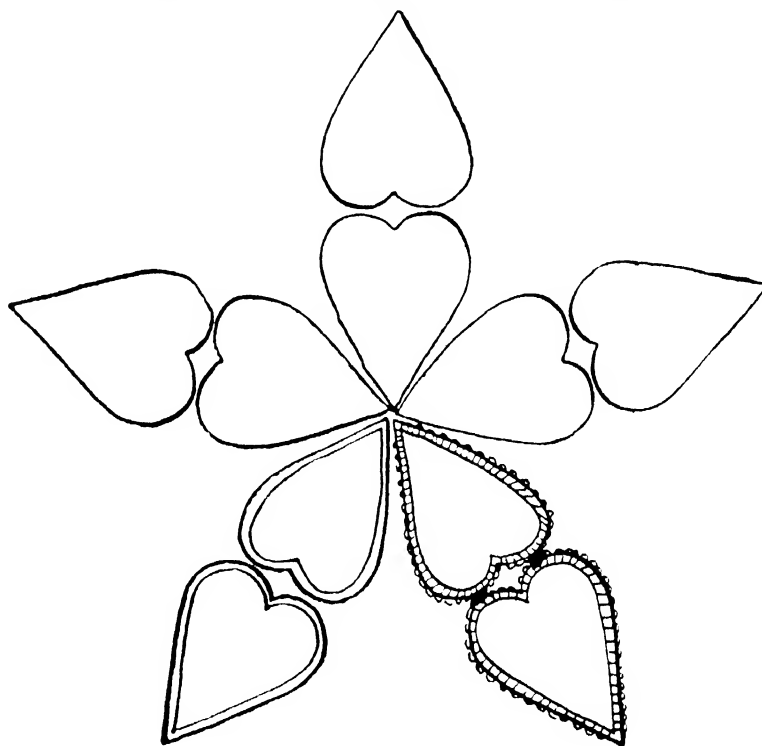


FIG. 47
Separate Units used for Trimming

50 f), hair tidy, and baby's rattle with small stones inside.

The circular base can be stuck on with Seccotine, or if preferred, sewn with raffia catching up alternate strands on base and upright. Where a lid is required, this must be sewn on for about $\frac{1}{2}$ in. Herringbone stitch is the most satisfactory

ated by the older children under the supervision of the teacher. A foundation made of a piece of cardboard, covered by winding in the middle and oversewing at the ends, can easily be made by the seven-year-olds. For the oversewing, a tapestry needle with a large oval eye should be used.

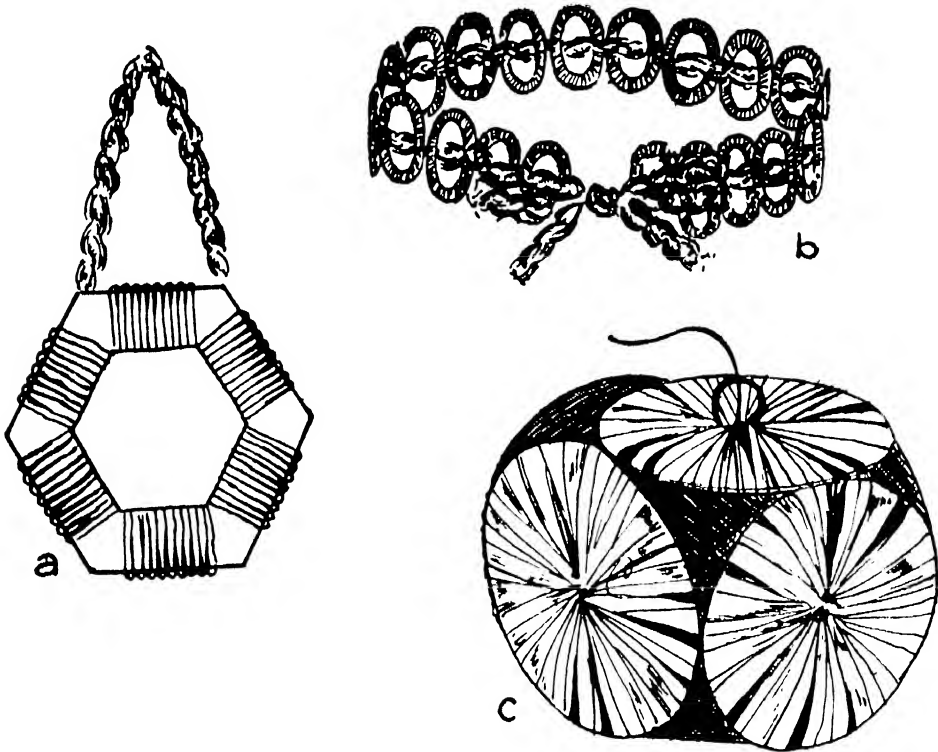


FIG. 48

(a) Photo Frame, (b) Napkin Ring, (c) String Box

to use, as in Fig. 51. Any empty match box, or other small cardboard box, may be used in various ways for winding.

A Spoon Basket

This can be made from a note-paper box with the bottom removed, and the sides wound with raffia (Fig. 53), the same as the serviette ring. Glue this to very thick cardboard, or 3-ply wood, which has been previously coloured and decor-

A firmer and more decorative edge may be produced by the button-hole stitch. This is merely a variation in the winding, and can be taught to quite young children (Fig. 52).

(b) Raffia Sewing

As the time allotted to sewing is limited in most schools, and to be useful and progressive *must* include commencing, joining, ending, and making of corners, there is plenty of scope for

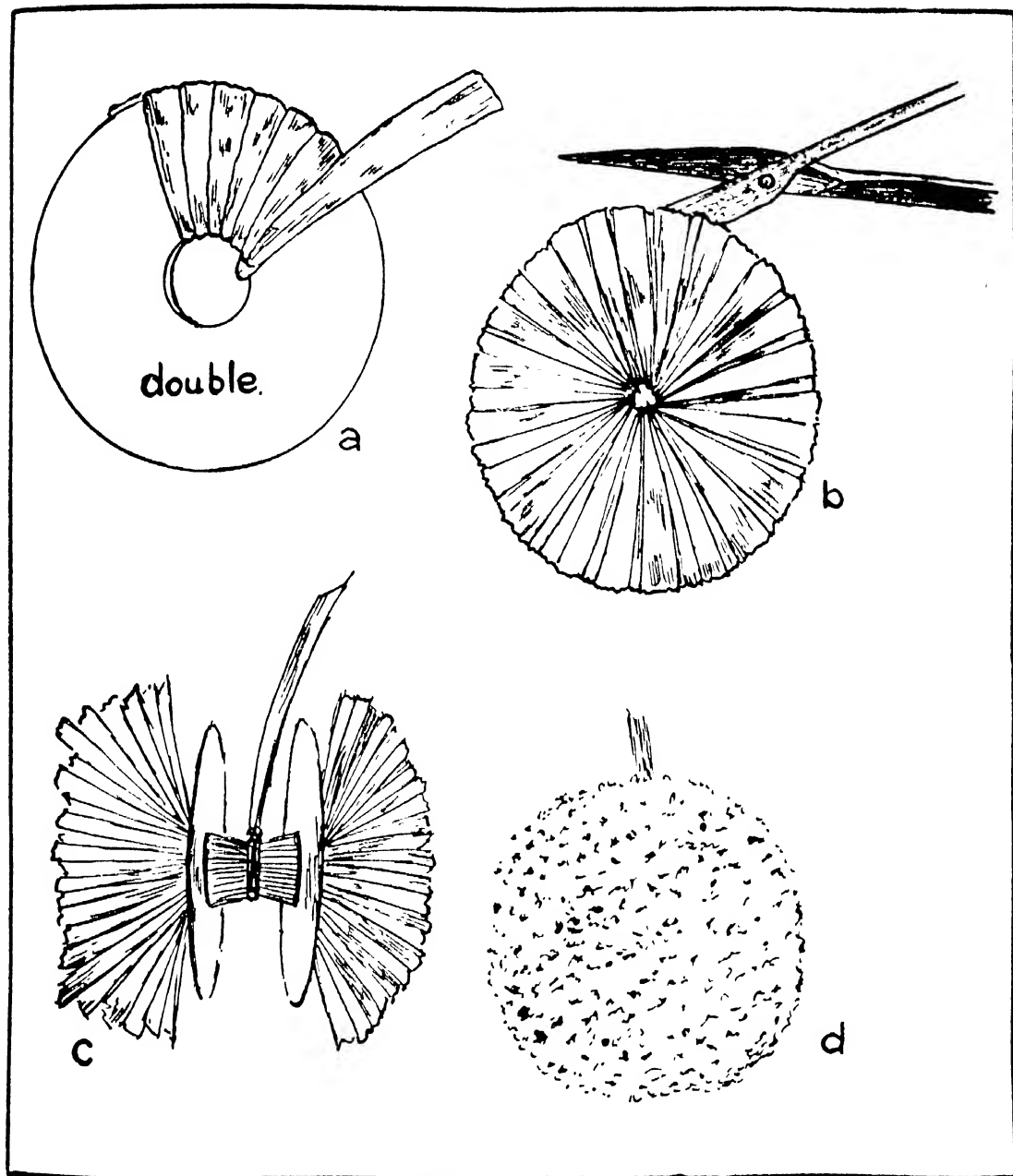


FIG. 49
Making a Ball of Raffia

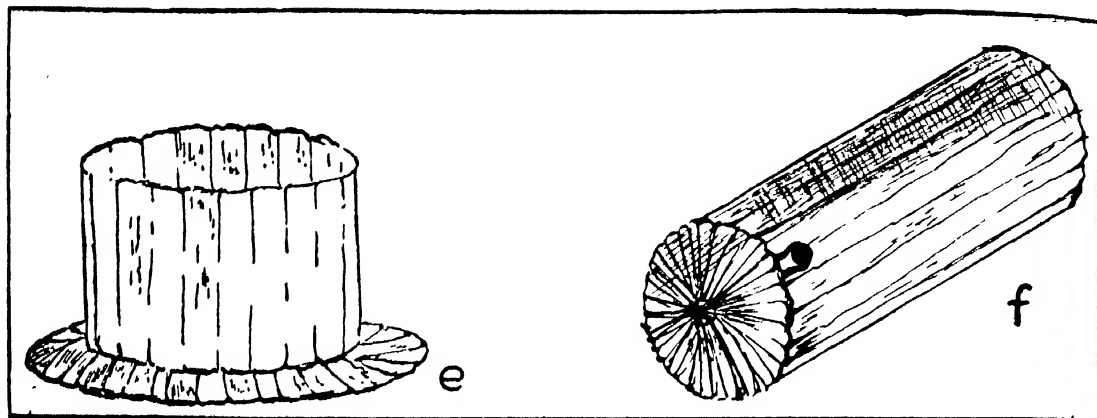


FIG. 50

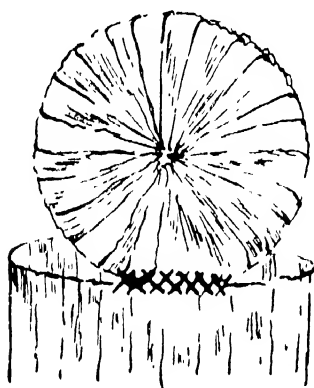


FIG. 51

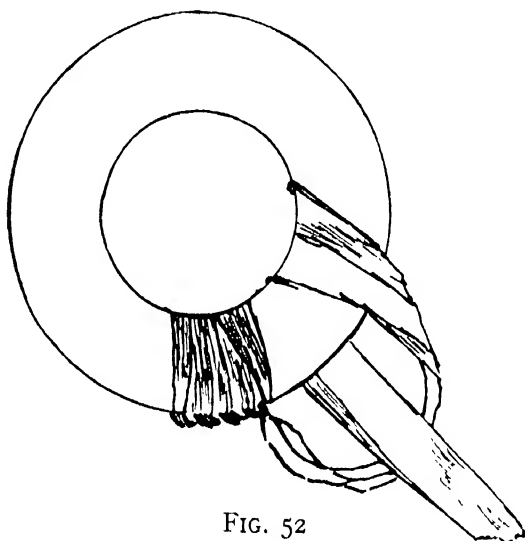


FIG. 52

Button-hole Stitch

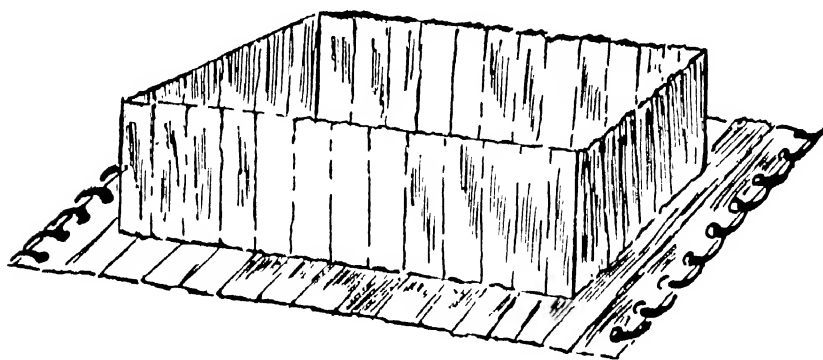


FIG. 53

A Spoon Basket

experimenting with stitches in raffia. Use a canvas with a wide mesh, brightly coloured raffia, and blunted needles with large eyes.

There are three types of canvas most suitable for children—coarse brown, medium brown, and fine white (Figs. 54 *a*, *b*, and *c*).

Various Stitches

The following stitches are shown in Fig. 55:

Most needlework stitches can be worked on the canvas, including such stitches as hemming, herring-bone, cross-stitch, button-hole, feather-stitch, eyelet, chain-stitch, and back-stitch, all of which are shown in Fig. 56.

What Children Can Make

Fig. 57 illustrates mats (also suitable for

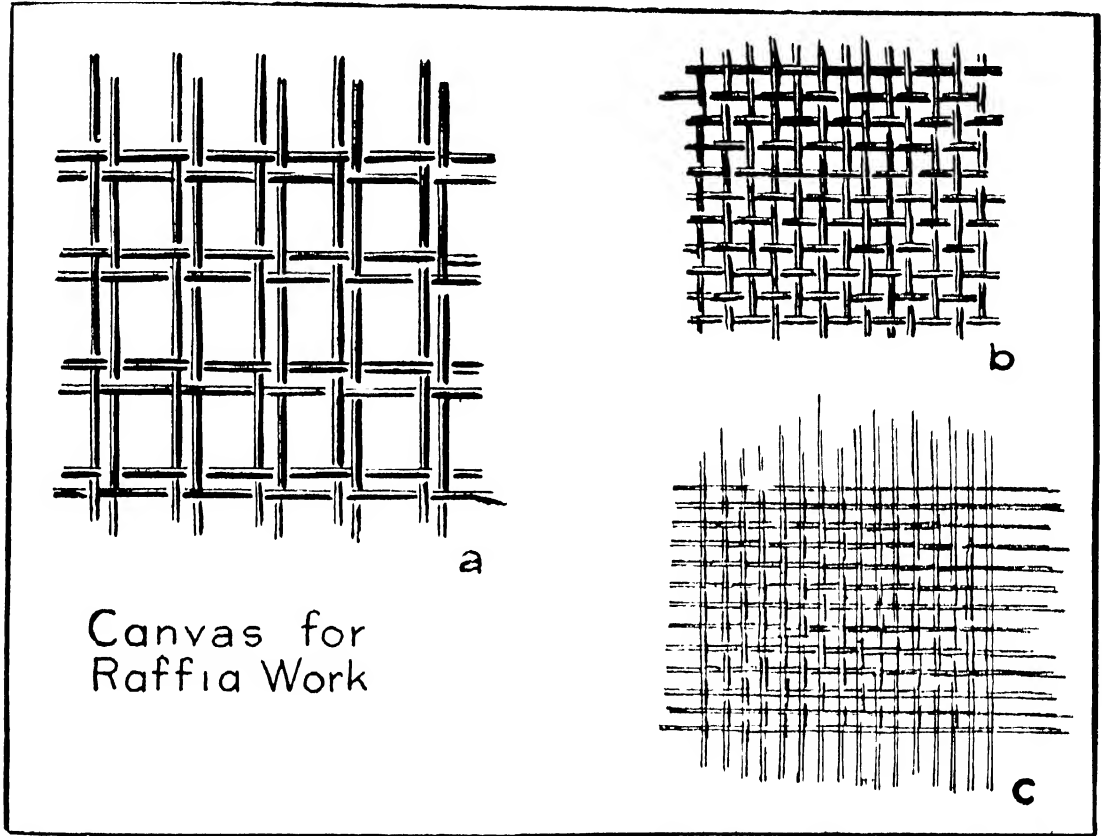


FIG. 54

Short running stitch—over one mesh, under one mesh; tacking stitch—over three, under one; while Fig. 55 *c* shows *a* and *b* combined to make a pattern.

Variations in the grouping of the running and tacking stitch are shown in Figs. 55 *d*, *e*, and *f*, while over-sewing (Fig. 55 *h*) gives excellent practice in joining edges. Variations in the grouping of the over-sewing stitches may be used to form patterns suitable for filling in backgrounds. (See Figs. 55 *h*, *i*, and *j*.)

handkerchief sachets), tea cosy, bag, simple hat bands, blotters, and pochettes.

Coloured hessian may be used instead of canvas, and most of the stitches can be worked in the same way; e.g. to make the mat, take a piece of hessian of suitable size, and fray the edges. The children fray by removing one thread at a time. Do two or three rounds of running stitch near the frayed edge (Fig. 57 *e*). A variation is to turn down the frayed edge, and do any stitch desired round it to hold down the

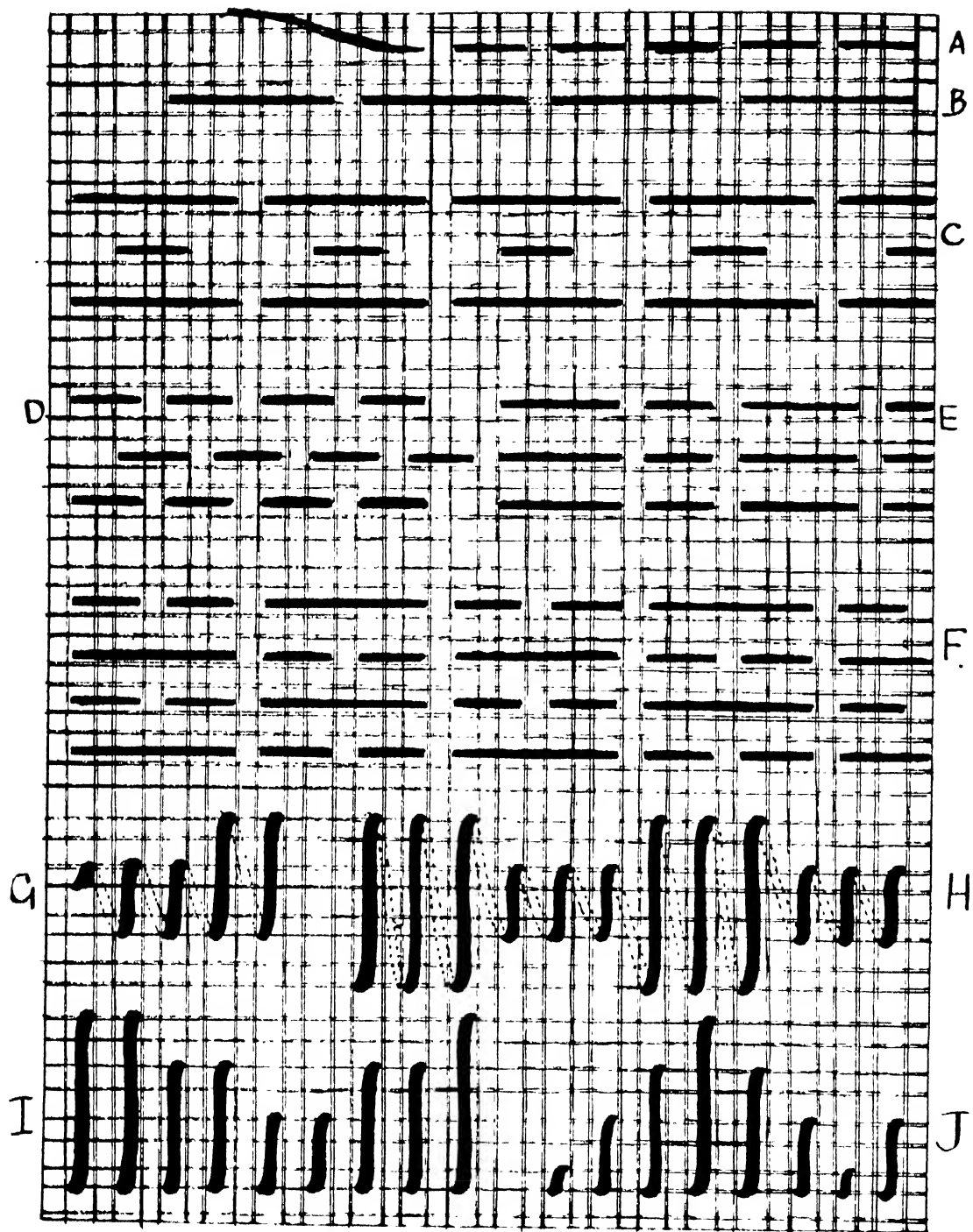


FIG. 55
Raffia Stitching on Canvas

fraying, as in Fig. 57 *f*. At the beginning of raffia sewing, the children join on a fresh strand of raffia by knotting, so that the knot comes on the underside. After a little sewing experience, the teacher shows how to run in the beginning of the new strand with the end of the old.

it across to point *b*, behind *b*, and back again, across on *same* side of card, to point *c*; behind *c*, and back and across to point *d*. Continue, and tie off on last point (Fig. 58 *b*). These parallel strands are called the warp.

Now thread a strand of raffia on a large

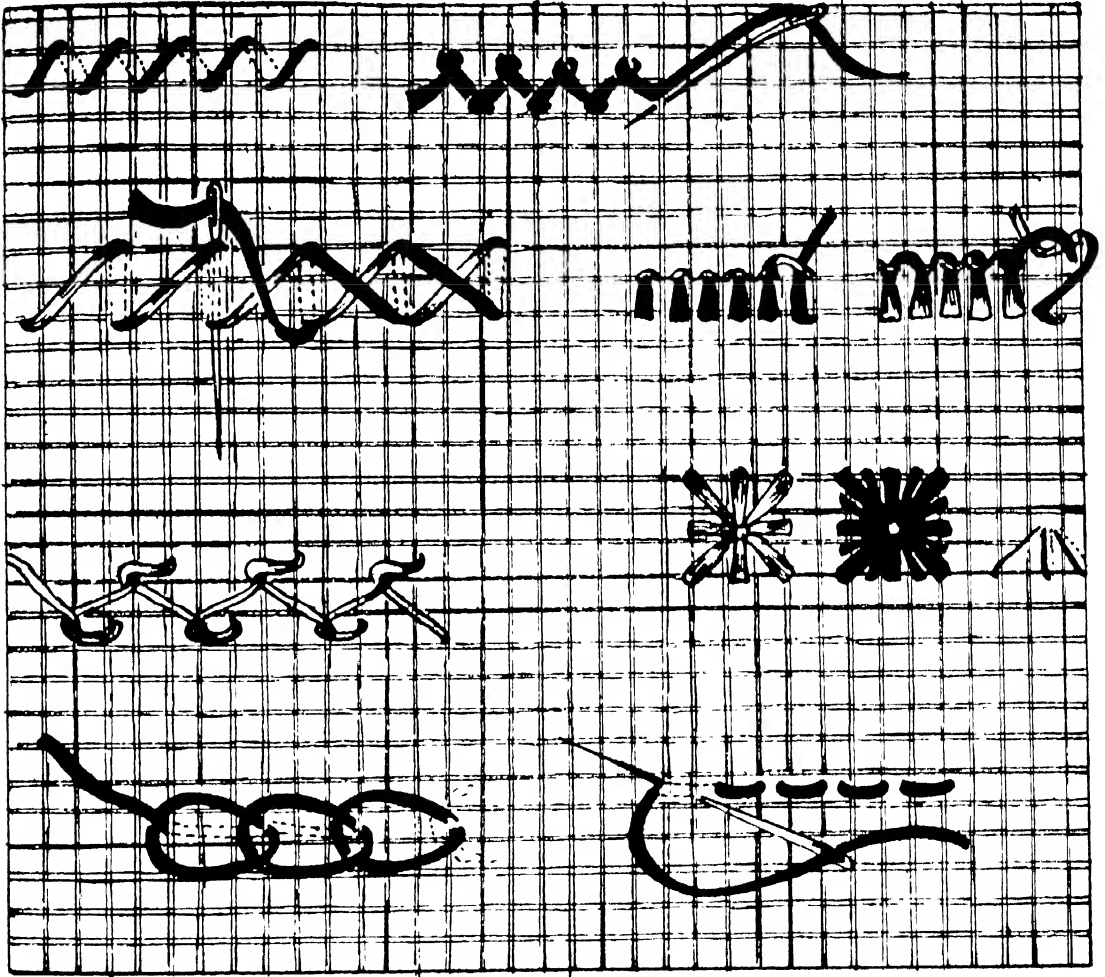


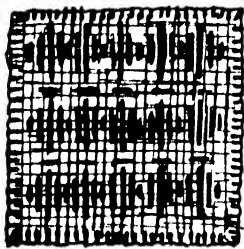
FIG. 56

Some Effective Stitches in Raffia

(c) Raffia Weaving

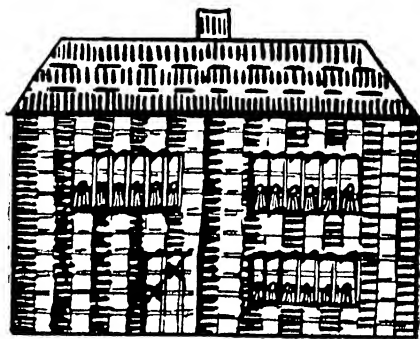
All weaving must be done on a loom which, in its simplest form, can consist of a piece of cardboard with an uneven number of notches on opposite sides, as in Fig. 58 *a*. Then take a piece of raffia, and tie it round first point; take

blunted needle with upturned point (the simplest shuttle for children), and weave in and out between the strands of the warp, i.e. over the first, under the second, and so on to the last strand, round it and back to the first again, as shown in Fig. 58 *c*. The moving strand is called the woof or weft.



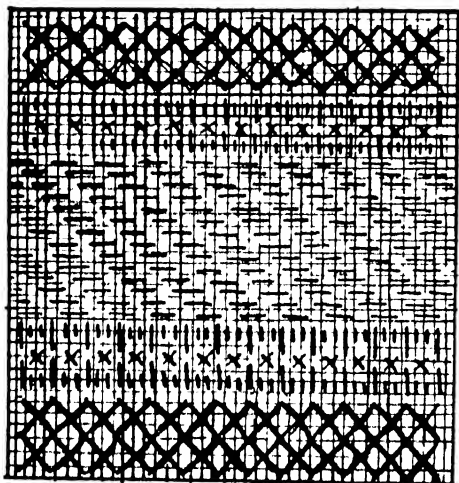
Mat.

a



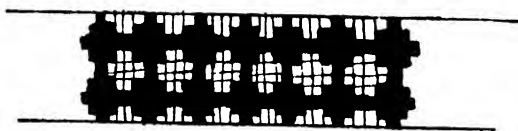
Tea Cosy.

b



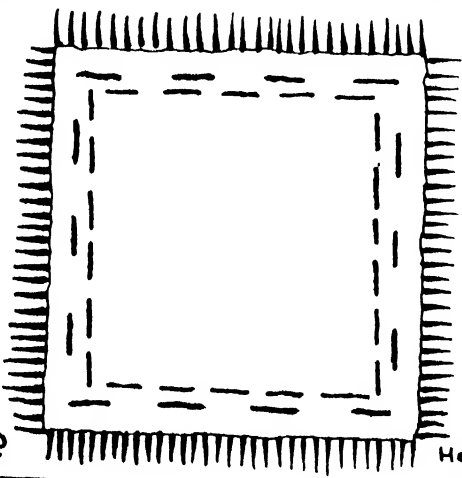
Simple design for shopping bag.

c



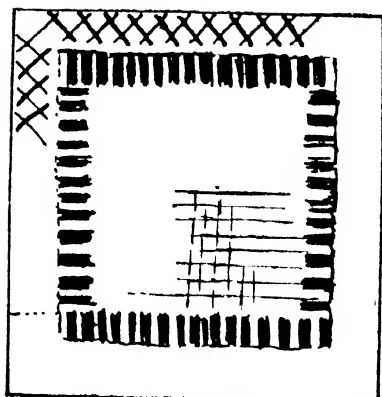
d

Simple Hat Trimmings.



e

Hessian Mats.



f

FIG. 57

Some Suggestions for Children's Work

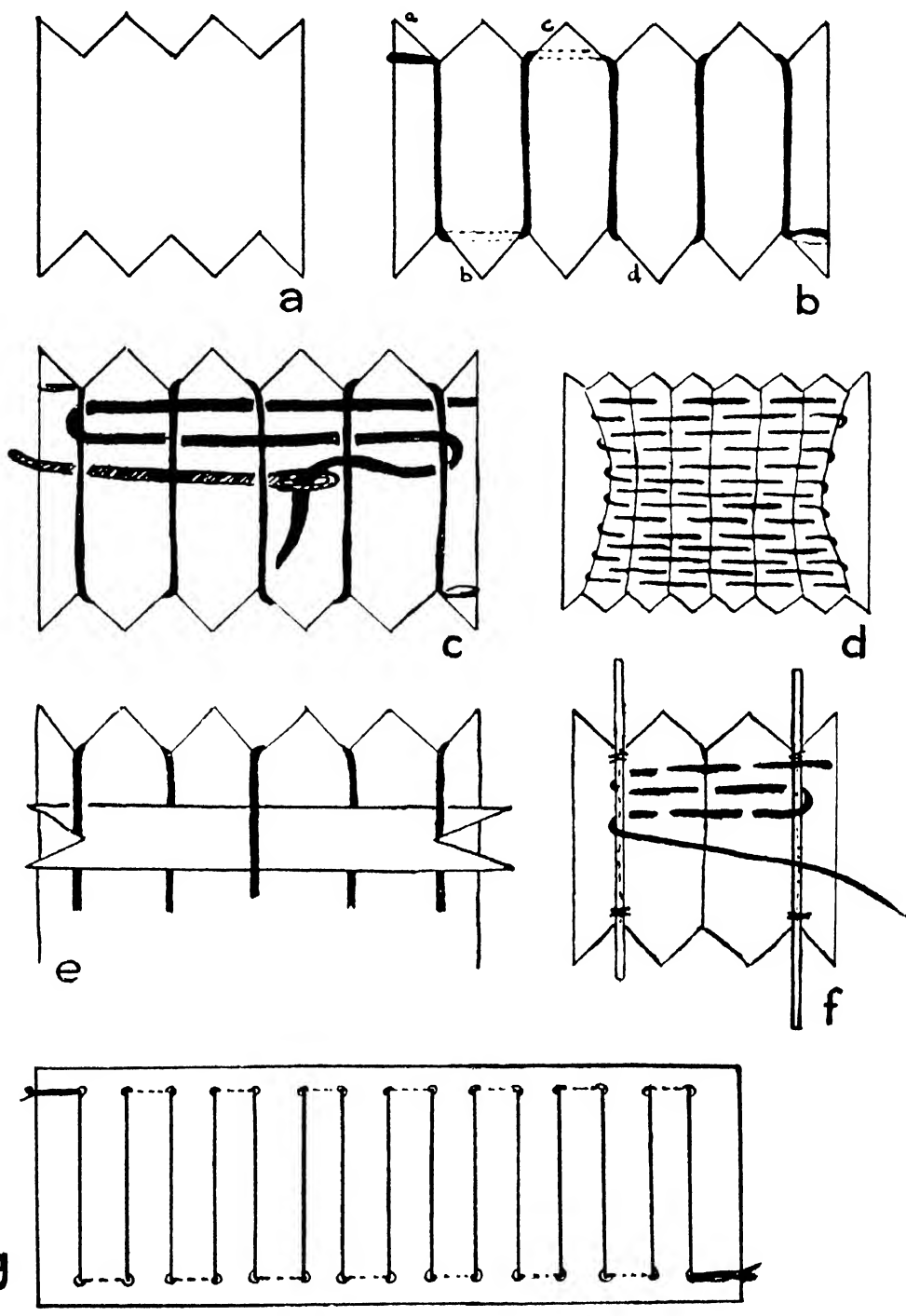


FIG. 58
Some Details of Raffia Weaving

Continue to and fro, until the loom is filled. The ends are then run in. It will be found that all children tend to pull the outside strands of the warp towards the middle, making the sides concave, as in Fig. 58 *d*. To obviate this difficulty there are two simple remedies—

1. A cardboard batten, with notches at each end, to the exact width of the warp, is placed between the end strands (Fig. 58 *e*), and moved down as work proceeds.

2. Knitting needles may be fixed alongside the outside warp strands, and the weft wound round *them*, as well as round the outside strands. When the work is completed, they are slipped out. (See Fig. 58 *f*.) To remove finished weaving, ease loops of the warp off the loom, which can be used again.

More Substantial Looms

More substantial looms can be made—

1. By fastening four laths together, to the required shape and size. On two opposite sides put an odd number of evenly spaced nails, round which the warp is carried.

2. From sides, or ends, of wooden chalk boxes, notched on opposite sides.

3. Old picture frames, treated as above.

4. Cardboard, pierced on two opposite sides, through which the warp is threaded. This loom must be cut to remove weaving. (See Fig. 58 *g*.)

More Difficult Looms

In Fig. 59 *a*, the foundation strands are taken over the notches into two brass rings, one for each side of the work. Tie a strand of raffia to ring *A* and take it round the first notch to ring *B* on the opposite side, then through ring *B*, and back over the second notch to ring *A*. Repeat until all notches are filled.

As the edge of the cosy along *CD* is not straight when finished, the rings and part of the edge must be turned to the inner side, and sewn down. Fig. 59 *b* shows the finished article.

In Fig. 59 *c*, the warp is threaded in a similar way. Instead of notches, the cardboard is pierced with holes through which the foundation strands are taken. Fig. 59 *d* shows finished bag, with plaited handle.

To Make a Slipper

Draw the shape of the slipper on a piece of cardboard, and pierce with holes about $\frac{1}{4}$ in. apart. Fasten a ring, as shown in diagram. Thread a needle and bring it up through *A*, across to *B*, down through *B* and behind the loom and up through *D*. Continue in this way until *E* is reached, when the warp passes in and out of the ring until *F* is reached. Continue to thread as for first side. Fig. 59 *f* shows the slipper sewn to a plaited raffia sole. (See Fig. 60 *g*.)

Children should be encouraged to cut out looms for themselves to make rugs for doll's house, cushions, clothing for dolls, etc. A sock for a dolly is shown in Fig. 59 *g*.

Patterns in the Weaving

1. Stripes can be introduced by altering the colours of the weft.

2. By using different colours in the warp and weft, we get a "tabby" weave. (See Fig. 69.)

3. By taking up, and leaving down, a different number of strands in the warp, delightful basket-weave patterns can be produced.

(d) Raffia Plaiting

This is a process easily mastered by young children. When they have learned the simple manipulation, they can proceed to sew the plaits into useful articles, or use them for handles, decorations, or for strengthening mats, bags, etc.

Plaiting with an Uneven Number of Strands (e.g. 5). Strands of raffia are passed through holes, spaced $\frac{1}{4}$ in. apart, in a piece of cardboard which is pinned to the desk. The end of each strand is knotted, to prevent it pulling through. Lightly holding the strands in the left hand, with the right hand take No. 1 and pass it under No. 2 and over No. 3 (Fig. 60 *a*), so that it now becomes No. 3—the middle strand. Now pass No. 5 under No. 4, and over No. 3 (the original No. 1). No. 5 is now the central strand. Repeat on the left with No. 1 (the original No. 2), and on the right with No. 5 (the original No. 4), as before, until the desired length is obtained. The plaiting is always done with the *outside* strand on either side.

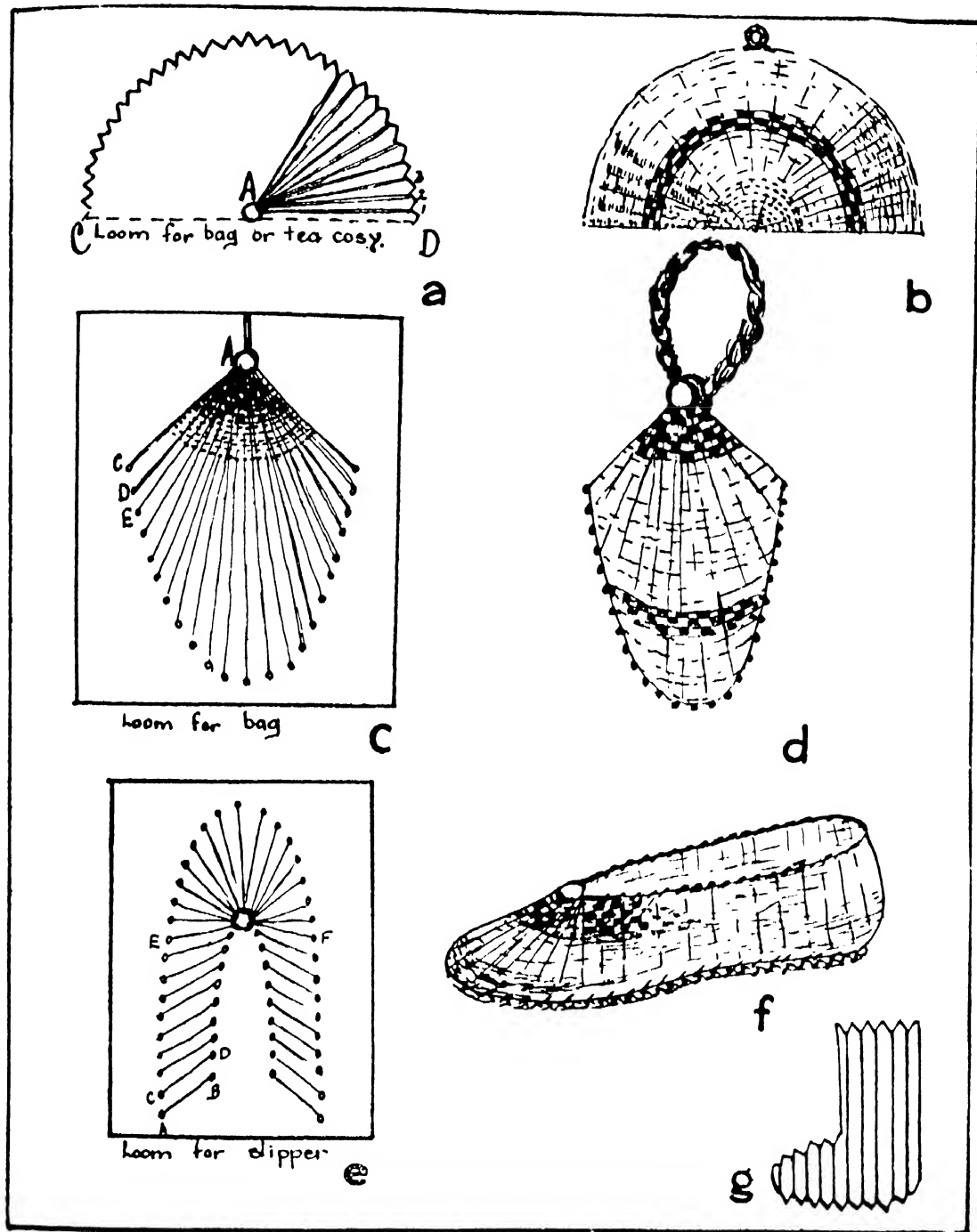


FIG. 59
Bag and Slipper Looms

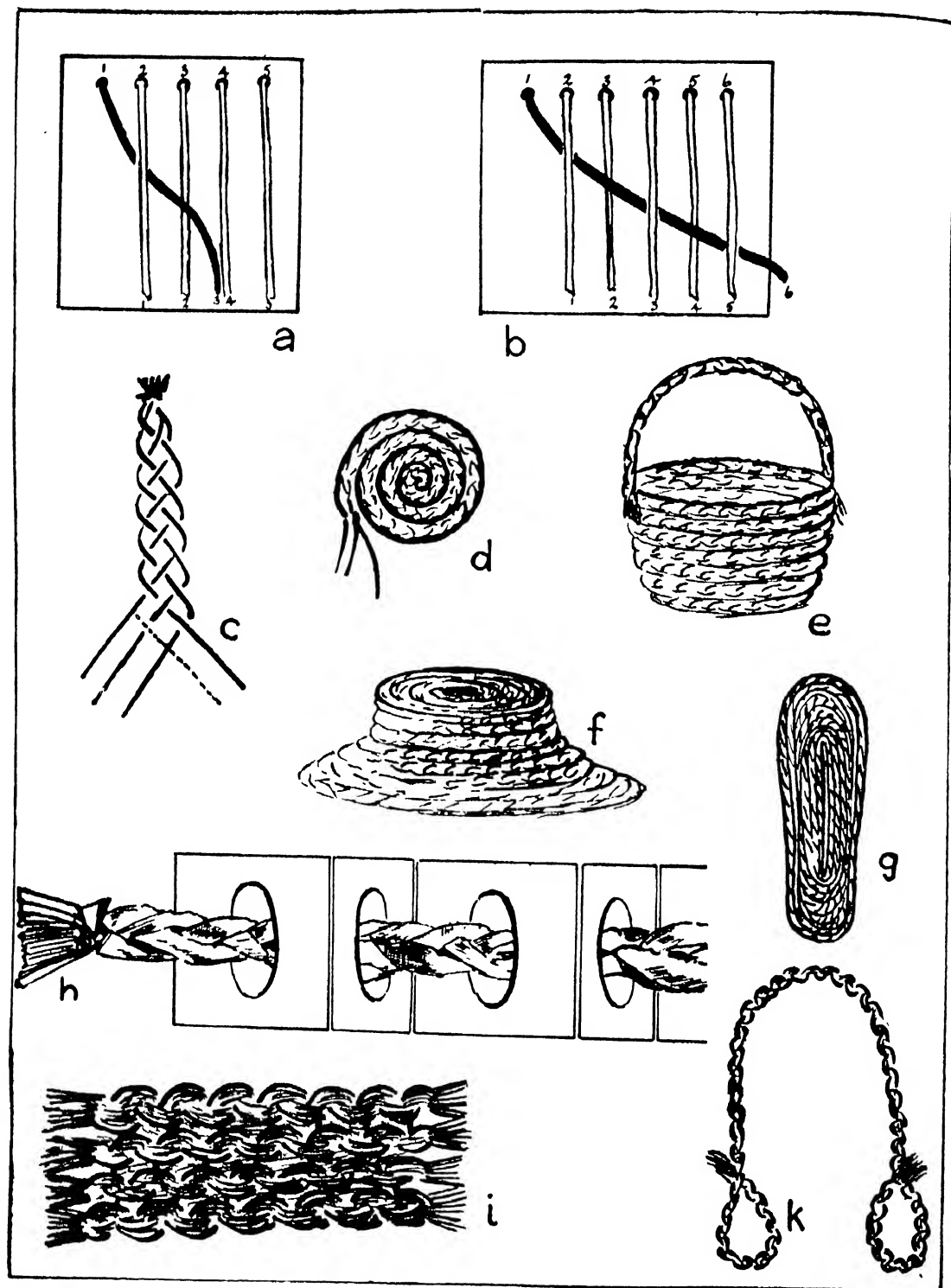


FIG. 60
Raffia Plaiting

The process may be summed up as—Left, under, over, leave. Right, under, over, leave.

With seven strands the process is—

Left, under, over, under, leave. Right, under, over, under, leave.

Plaiting with an Even Number of Strands, e.g. 6

Working from the left, take No. 1 in the right hand, and pass the strand under 2, over 3, under 4, over 5, under 6, as in Fig. 60 *b*. No. 1 is now No. 6. Return to left. Take the first strand, and proceed as before. Repeat to required length, and then knot, or tie off the end. Fig. 60 *c* shows a plait, with four strands, knotted.

To plait tightly, hold raffia close to the

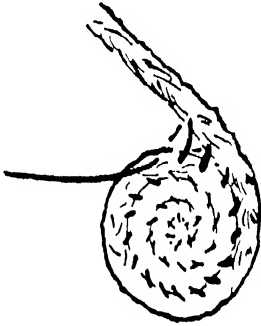


FIG. 61

How to Sew the Plaited Bag

plaiting. A distance of about 1 in. gives a plait of medium tightness.

For sewing into shapes, the plaits should taper off, so that the end can be tucked neatly away under the last sewing stitches. This can be managed by thinning the ends of the strands.

To commence an article, leave the knot free for about 1 in. When a few lines have been sewn, cut off most of the loose raffia, including the knot, and sew in the rest, strand by strand, on the wrong side, so that the centre presents a flat surface.

Joining a Strand

1. Place the new strand beside the end of

the old, and plait together. This makes the best join.

2. Join by knotting. The knot must be on the wrong side.

Method of Sewing Plaits Together. This is a very simple process, using the over-sewing stitch. The plaits are kept quite flat, and the stitches



FIG. 62

Bag made from Plaited Raffia

fairly close together, and pulled tight enough to keep the joining of the plaits firm. On the right side of the work, the stitches will appear like small bridges from one plait to the other, as in Fig. 61.

Articles which can be Made with Plaited Raffia

(a) Mats of different shapes, oval, circular, etc., as Fig. 60 *d*.

(b) Little baskets, with or without covers (Fig. 60 *e*).

(c) Little tubs for chalks, pins, crayons, etc.

(d) Napkin rings.

(e) Kettle or iron holders, lined and stuffed with suitable material.

(f) Dolls' hats, made to fit real dolls brought to school by the girls, as in Fig. 60 f.

(g) Curtain bands, threaded through various shapes, as in Fig. 60 h.

(h) Soles for paddlers (Fig. 60 g). By reversing the direction, half way round on one turn, the extra width for the toe can be made.

(i) Sandals, with toe cap and straps.

(j) Slippers, both soles and uppers, the plaits sewn on to thin cardboard shapes.

(k) Handkerchief or glove or ribbon cases. Either the plaits may be sewn right on to cardboard, the inner portions of which will be lined, or sewn to sateen, which is used to cover the cardboard.

(l) Skipping ropes (Fig. 60 k) and reins.

(m) Blotter covers.

(n) Toilet tidies.

(o) Washstand splashers, sewn on cardboard.

(p) Pot covers (not so good as when made by winding).

(q) Floor mats. This work is for older boys and girls, but if several children work together a mat for the schoolroom is soon finished.

Plaited Bags

Rectangular bags are made by joining wide strips of plaiting, with an extra strip of plaiting sewn round the mouth of the bag for strengthening. Edges of bags and other articles can be decorated with coloured plaits, or beads.

Circular Bag. Use two large circular mats, and a wide, many-stranded plait sufficiently long to make continuous handle and gusset. (See Fig. 62.) Make the necessary join at the bottom of the bag. Where the wide plait branches off to form the handle, strengthening stitches should be added.



FIG. 63. *A Family of Goats from Sweden*

SIMPLE WAYS OF WEAVING

IF weaving is studied from the right view point, i.e. the study of materials and patterns in textiles, the work in the Infant Department will be a definite laying of foundations. The various operations involved, the

stiff wire, is pushed through the end holes, so that it runs alongside the end warp strands.

Weaving consists of making a cloth, or texture, by first stretching a set of parallel threads, called warp threads, and darning across these (or passing between them) a set of strands at right angles to the warp. These strands are called the "weft". In simple rug or tapestry looms, the warp threads are taut and the weft are woven or darned through them. In cloth-making the warp threads are arranged in groups, the simplest being alternate threads, so that each group may be lifted to allow a weft thread to be "shot" through. Where warp and weft threads are both to show in the finished cloth, the warp threads must be close together and of equal thickness with the weft thread.

Referring again to the post card loom, it will be seen that, with strands threaded $\frac{1}{4}$ in. apart, the warp will be lost when the weft is pushed together. (Fig. 65 b.)

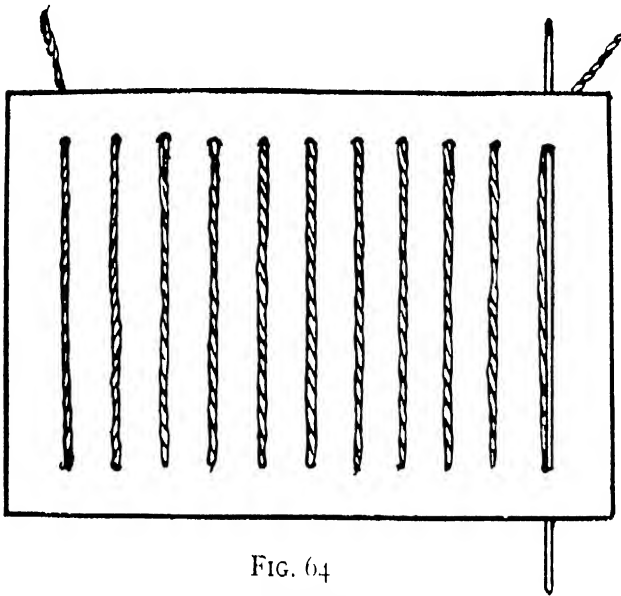


FIG. 64

Post Card Loom

materials used and the patterns worked, will be based on what is found in textiles of primitive types.

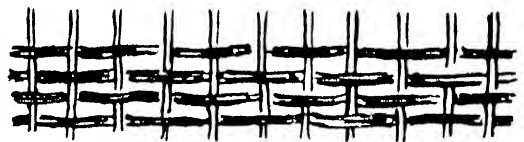
Examples are given here of weaving on: (a) cardboard frame looms and (b) wooden frame looms. Weaving materials suitable for these looms are knitting wools, thrums, string, knitting and embroidery cottons, heavy artificial silk yarns, rushes, straw, etc.

Cardboard Looms

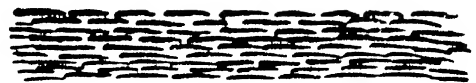
Cardboard looms have long been in use for raffia weaving. Fig. 64 shows a loom which may actually be made by the little ones. A stiff post card is used, with a $\frac{1}{2}$ -in. margin line drawn all round, and two opposite sides pierced with holes $\frac{1}{4}$ in. apart. To stiffen the edges where the weaving thread turns, a knitting needle, or

Rug on Loom (Fig. 66)

Note that, in order to give a striped border to the rug, the warp threads run along the



a



b

FIG. 65

(a) *Loose Weaving* (b) *Pressed together*

long side, and weaving is done on the shorter dimension. The simple over-one-under-one stitch in weaving may be varied, as Fig 66;

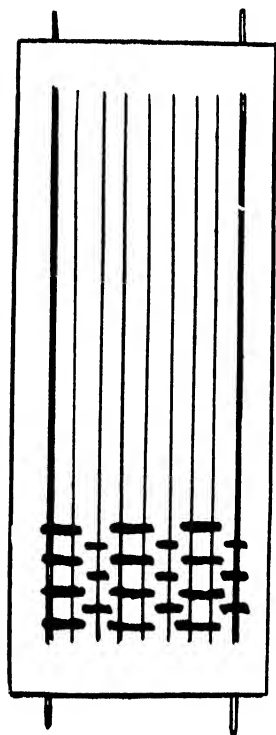


FIG. 66
Rug on Loom
(Pattern for Rug Border)

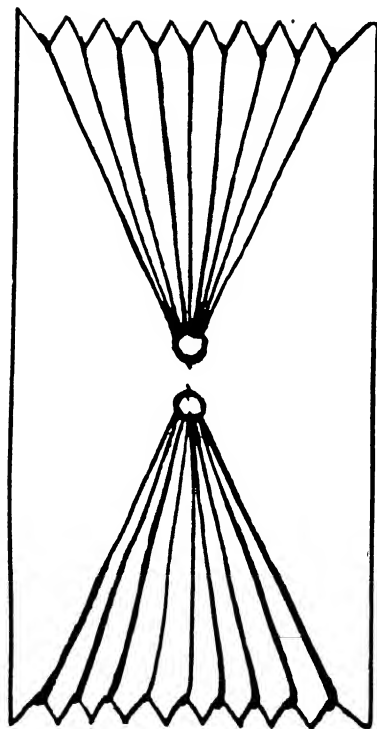


FIG 68
Loom for Hammock

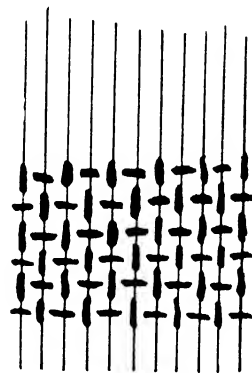


FIG. 69
Tabby Weave

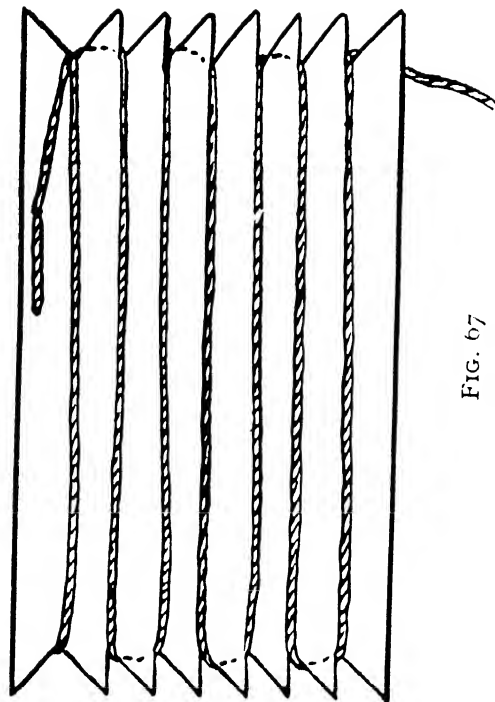


FIG. 67
Bag Loom

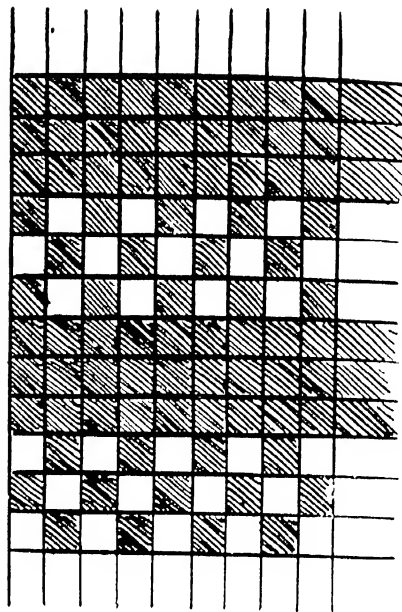


FIG. 70
Warp Stripe

the longer stitch adds strength and interest to the design. To remove finished rug from loom, tear off the cardboard borders (the perforated holes enable this to be done quite easily), and pull out the knitting needles which have kept the width even while weaving. A true oblong of woven material will be left. To finish the rug,

along the top, similar to the first full-strand on the side threaded. Then bring round the thread to the front, and finish off through the pierced holes. These two threads, the start and finish of the warp, are not woven up, but are picked off the loom at the end of weaving, and run down the side, or used to join sides of bag.

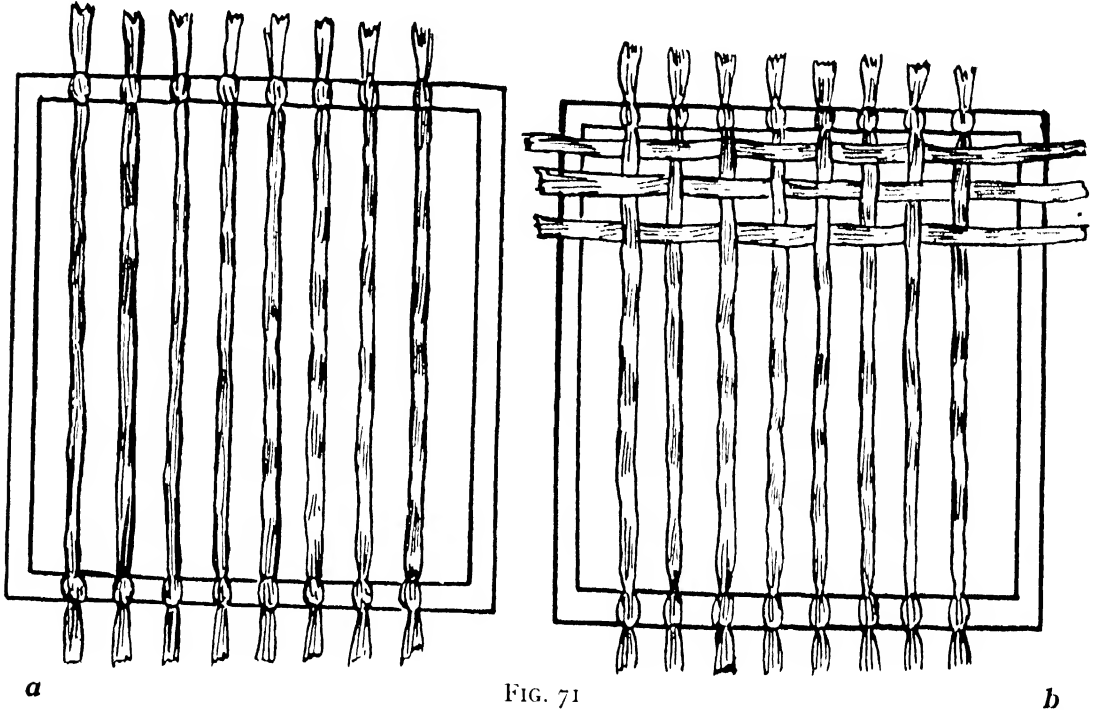


FIG. 71

Frame Loom(a) *Fastening the Warp*, (b) *Weaving*

put fringes or tassels on the short ends (See *Wool Work*, page 1023, for fringes)

Bag Loom (Fig. 67)

To thread this, fasten thread firmly through holes pierced in bag top. Take thread into first notch and round the back, then across the front between the first two notches. Go round the first point, then across the front to the second on the left-hand side, and so thread backwards and forwards, going round the points and coming to the front again. Only one side of the loom is wound, and when it is done, turn the loom and thread similarly to the top. See that there is a full length strand

The advantage of this threading is that (a) the warp strands run parallel; (b) the work can be picked off the loom, and the sides joined to make either a satchel or pochette shape; (c) the loom may be used several times.

Loom for Doll's Hammock, Bands, or Small Bag

Fig 68 shows the fixing of two rings on one side. The warp strands go from ring 1, across from notch to notch on the front of the loom, round to back again and through ring 2, turn, and round similarly back to ring 1 again. Similar cardboard looms may be seen in Fig. 59 (page 1009). The notches or holes bored to

hold warp strands must be close together if the warp is to play any part in the cloth pattern.

Patterns. Figs. 66, 69 and 70, show varieties of pattern that emerge even in these small darning looms. As has been stated previously, a *weft stripe* is obtained by weaving back and forth in a contrasting colour to the main colour of the weaving yarn.

"Tabby weave," Fig. 69, is the name given to cloth made on the darning principle, where warp and weft show equally. "Tabby weave" looks the same on both sides. Warp stripes are most easily obtained by threading coloured warp threads where the stripe is needed. In Fig. 70, suppose the warp thread is white with black stripes, and the weaving thread shown is black, a pattern of black and white "tabby weave" will result, with an all-black stripe where the black weft threads are. Practice in stripe patterns may be done by weaving thick wool into string clusters, or by paper-strip weaving.

Simple Wooden Frame Loom

Fig. 71 *a* shows a simple wooden frame loom. It can be made from pieces of ordinary builder's lath. Any size loom can be made, but the corners must be fastened very securely. An old slate frame makes a very good loom. To thread this loom, tie a sufficient number of warp threads across as shown, using a single knot

each time. Leave an equal length of the warp threads on each side to form a fringe. The raffia, or wool, used for the weft must be in strands of the same length as those used for the warp, if the loom is a square one. (See Fig. 71 *b*.)

When the weaving is finished, untie the warp threads from the frame, and take the square from the loom. Knot the ends together to form a fringe and prevent the weaving from coming undone. If raffia is used, use a pin to fringe the raffia ends. Mats and carpets for the doll's house, or the model farm, may be made in this way. Also a cushion, if two squares are woven and tied together.

This loom can also be threaded by winding a long warp thread right round and round the loom, tying it to the frame at the beginning and end. In this case, when the weaving is finished, the raffia must be cut to take it off the loom.

Mats, kettle-holders, tea-pot holders, etc., can be made from frame-looms of different shapes and sizes.

More Advanced Looms

In the lower school more advanced forms of looms will be made and used, including a box loom fitted with healds to make a shed through which a shuttle may be passed. A cardboard "batten" can also be made by the children, with which to push their weft threads close together.

WOOL WORK

WINDING, KNITTING, AND STITCHERY

THIS work can be made one of the most attractive of all the branches of school handwork undertaken in the Infant School. The lovely colours now available in wools give it a special charm as a decorative medium, while many quaint notions make the

2. *Plain Knitting Strips.* Kettle holder, doll's scarf, face cloth (of white cotton), doll's hat and pullover dress, baby doll's hood, doll's coat (three strips), shawl (square and long narrow strip) (For children of 6 and 7.)

3. *Strips that Narrow Down.* Doll's shoe,

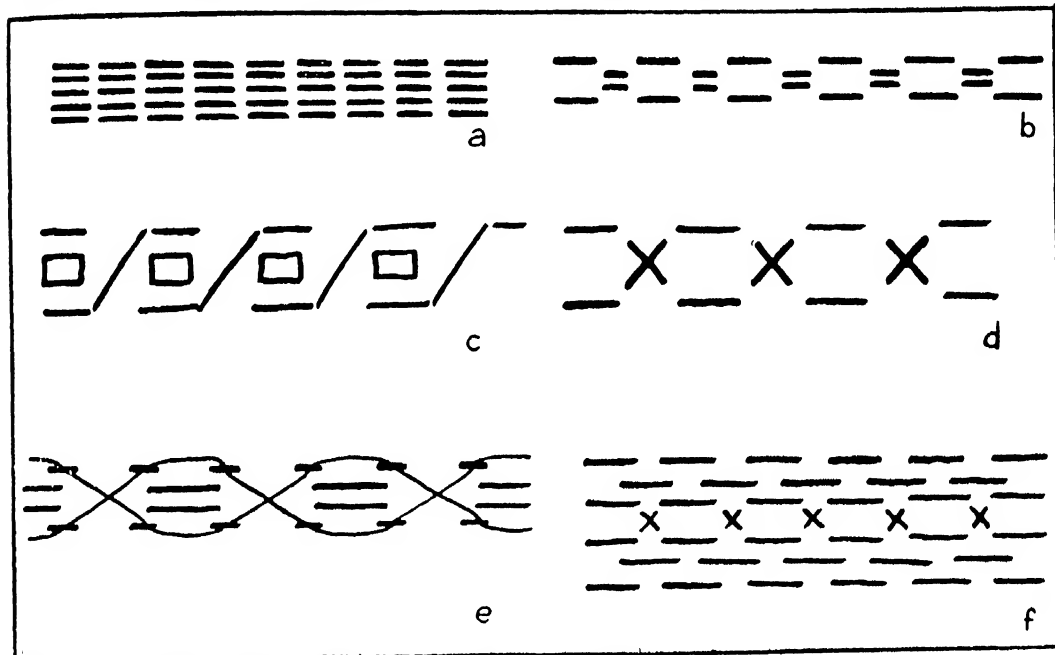


FIG. 72

Wool Stitchery on Canvas

learning of knitting a joyous adventure. All kinds of scrap wool should be collected, and if necessary, woollen goods that have been hand-knitted, unravelled and wound neatly in balls or round a thick card. It is possible to take some of the "crinkle" out of unravelled wool by holding the wound wool over steam, and then allowing it to dry in the air.

A Scheme of Work

1. *Wool Balls* wound, cut and trimmed by quite young children.

"quarter" triangles, for ball cover, roof for egg-cosy house. (Children of 7, and older.)

(Note that into these models may be introduced colour stripes, purl and plain, "chain edging," etc. Children of 6 and 7 can do this work perfectly.)

4. *Wool Winding, etc.* Woollen flowers in "tassel" shapes, ball shapes, loops, etc. In making these up for button-holes, or other decoration, they may be combined with acorn cups, beech-nut husks, beads, button moulds, leather scraps for leaves, etc. Charming doll egg-cosies may be made from combined tassels

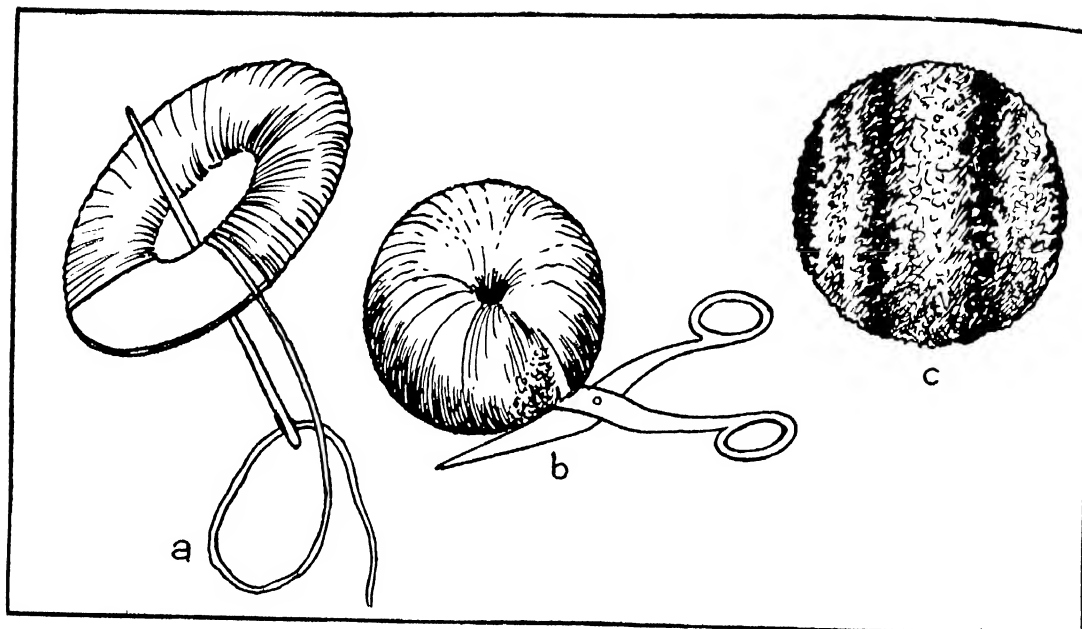


FIG. 73
Method of Making Woollen Balls

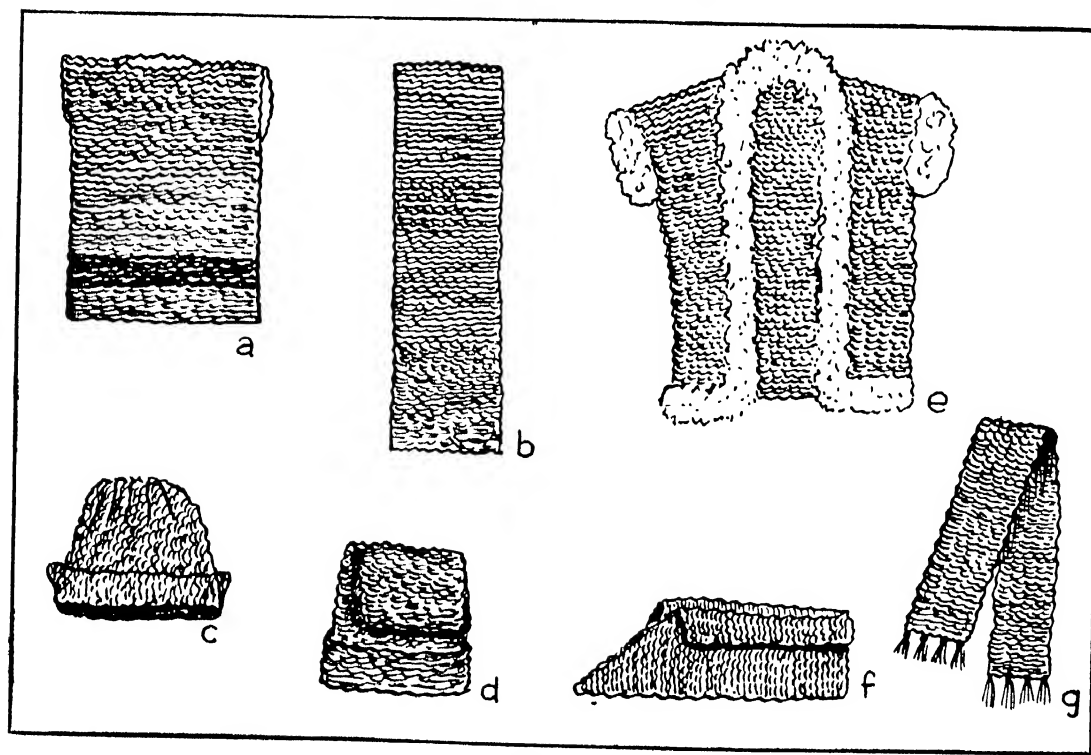


FIG. 74
Doll's Clothes which a Child can Knit

and knitting, while tassel dolls may be used as toys. (*See Toys and Games Section.*)

5. *Tacking Stitch Embroidery* on canvas and similar materials, should precede finer stitchery. It is possible also to use couching, cross-stitch and blanket stitch in the first two years of school life. Effective use may be made of squares, circles, triangles, etc., of coloured felt, also small beads, in conjunction with the wool stitchery. (*See Needlework Section.*)

Baby's Ball (Fig. 73)

Materials. Two cardboard discs for each ball, approximately 4 in. in diameter, with circular open centre $1\frac{1}{2}$ in. in diameter. Wools of all colours. The two discs are put together and wound till the hole in the centre is filled up. The wool is then cut with a sharp knife round the outer circumference edge, or, better, with a pair of scissors, as shown in diagram. The two cardboard discs thus exposed are pressed apart, and a strong thread is passed several times round the wool in the centre. This thread is knotted with a running knot which is tightened as the two discs are cut away, leaving a rough ball shape. This is then clipped with scissors to a nice round shape.

Doll's Clothing

1. *Pullover Dress.* Two strips of plain knit-

ting joined at the shoulder and down the sides (Fig. 74 a). It may be gathered at the waistline.

2. *Hats.* Two varieties of hats, made from straight pieces of knitting joined, are shown. In the first case the strip is joined on the short

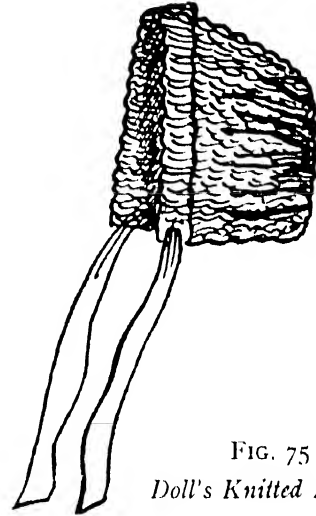


FIG. 75
Doll's Knitted Bonnet

sides, and in the second, at top and on one side. These are shapes usual in small girls' school caps. (Figs 74, b and c.)

3. *A Coat.* This would be of three pieces, of equal length, but one double the width of either of the other two. If the coat and dress are made for the same doll, note the need for

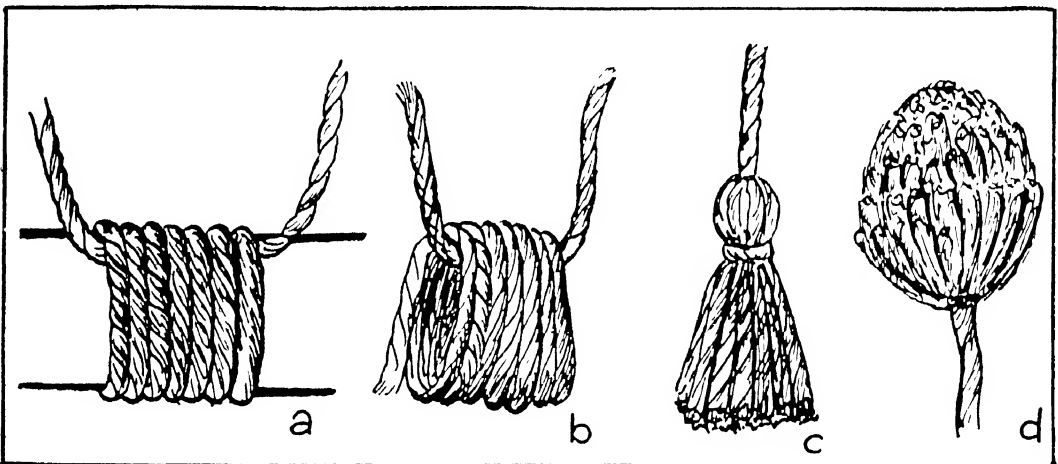


FIG. 76
Tassel Method of Making Flowers

greater width, to give the magyar sleeve for the coat sufficient length. The coat is shown decorated with canvas rug work (Fig. 74 e). Large mesh canvas (not, however, the heavy string canvas used in real rugs) should be used, and a hook is required to pull through loops of

long narrow strip of plain knitting, sewn on with wool to a square of plain knitting. It must be slightly gathered at the corners to enable the border to be flat all the way round. The hood is merely a strip gathered at the back. A button-mould wound with wool covers the drawing-in,



FIG. 77
Finished Marguerite

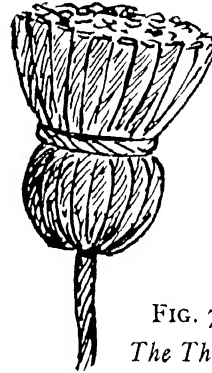


FIG. 78
The Thistle

wool and make the stitch. See *Section on Wool Fringes* (Fig. 84).

4. *The Shoes.* To complete the outfit, make shoes from knitted strips. They are joined along the bottom and up the front, and folded down over the ankle. If necessary, they may have a thread drawn through the ankle and tied in front. A scarf is also shown with fringes, made similarly to the clipped wool trimming

5. *Baby Doll's Hood and Shawl.* Use light or white wool. The shawl border consists of a

ribbon ties may be added, and it may be turned back from the face (See Fig. 75)

Wool Flowers

Use coloured scraps of wool, wire, beads, etc.

Clover, Marguerite, Cornflower, Thistle: from tassel shape; also cowslip adapted from tassel.

For Clover (Fig. 76), or ball shapes, wind, tie, and cut as in illustration, wool of one or mixed

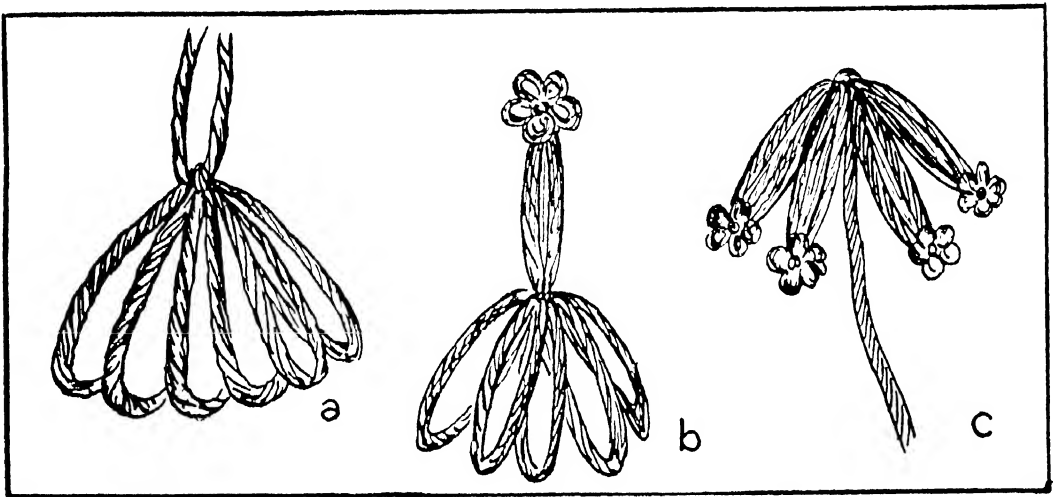


FIG. 79
Stages in making a Cowslip

colour. For *Marguerite*, etc. (Fig. 77), wind first the centre colour, say twelve to sixteen times, then wind petal colour on top, sixteen to twenty times. Tie securely, then fold down the petal wool and cut the centre wool as desired for

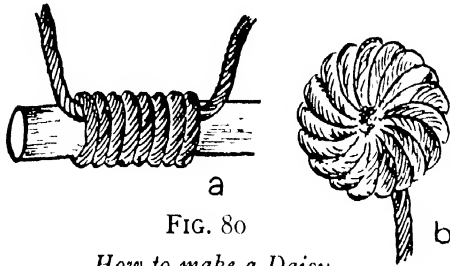


FIG. 80

How to make a Daisy

the various flowers. The cornflower and thistle (Fig. 78) are adaptations of this. Cornflower centre is shaggy dark violet, with flecks of white, petals blue, and one or two strands of green on the outside. Thistle, violet, are cut straight across with a few strands of green on the outside.

The Cowslip (Fig. 79). Use thick green wool (old-fashioned Berlin wool is best). Wind about eight or ten times. Two loops make the calyx of one flower, and the group of loops make a "head" (Fig. 79 b). Fasten a coloured strand of wool to the end of two loops, and work five loops with needle and thread round the green centre.

Small Button Daisies. Make by winding loops round a pencil (see Fig. 80), and secure to stalk

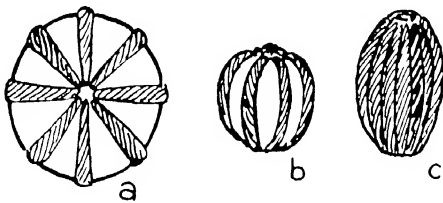


FIG. 81

Flowers made on Button Moulds and Beech Nuts

by a stitch or two in the centre, or a small bead—clear glass is best.

Stalks should be of wool twisted into a two-strand cord. This cord may be made by doubling a strand of wool and twisting one strand away from the worker, then turning it down over the other, round which it will twist. This

gives a rope that remains locked. A knot at the end finishes the stem. Single strands of wool may also serve.

Other decorations, including beech-nuts, wooden beads covered with wool, painted button moulds partly covered, combined with leather leaves, are shown in Figs. 81 and 82.

A Pretty Egg Cosy. The Cock's Head

Cut out a hen the size and shape shown in Fig. 83 a from a piece of flannel, or felt, or other material that will not fray easily. White, cream, or light brown material may be used. Two heads are cut, and the beaks and top of the head are

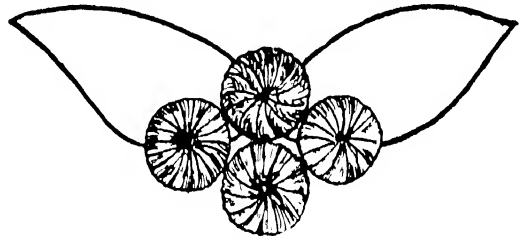


FIG. 82

Wool Flowers made on Button Moulds

pasted together. The eye is marked on in Indian ink, or a bead may be sewn on.

The comb (Fig. 83 b) is made from red wool. A fringe of red wool is first made by button-holing the wool on to a ruler. When the fringe is long enough, the end is tied and cut off. The fringe is then sewn with red thread on to a piece of thin wire, or wool, or string, and slipped off the ruler. It is then sewn around the top of the cock's head as shown.

Three more fringes of brown wool are made in the same way, and sewn on (as in Fig. 83) to represent rows of feathers. Some loops of red wool may also be sewn under the beak, to represent the wattle. The sides are sewn together with brown wool, using the buttonhole stitch or over-sewing.

A chicken egg cosy can be made in a somewhat similar way, leaving out the comb and wattle and using yellow wool for the feathers.

Little ones will enjoy making the "feathers."

while the seven or eight year olds can sew them on.

Wool Stitchery on Canvas

Various combinations of stitches are shown in Fig. 72, for application to table-runners, mats, bags, curtain bands, bands on oblong

tacking. Suggested colours: blue dominant, with orange or violet.

C is effective worked in colour contrast, one colour for squares and another for the lines. The horizontals of all the squares are done first, then the perpendiculars. Colours: crimson and blue; or black and orange.

D introduces cross-stitch. This may be done

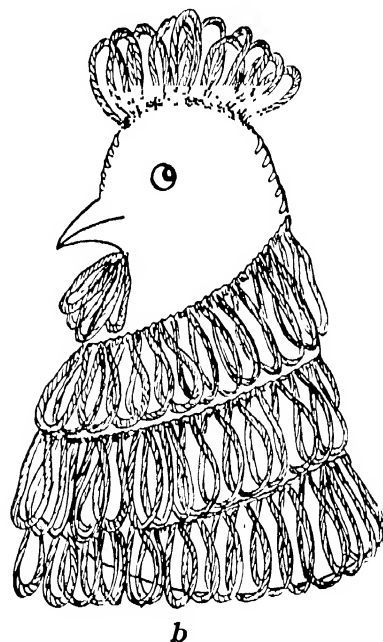
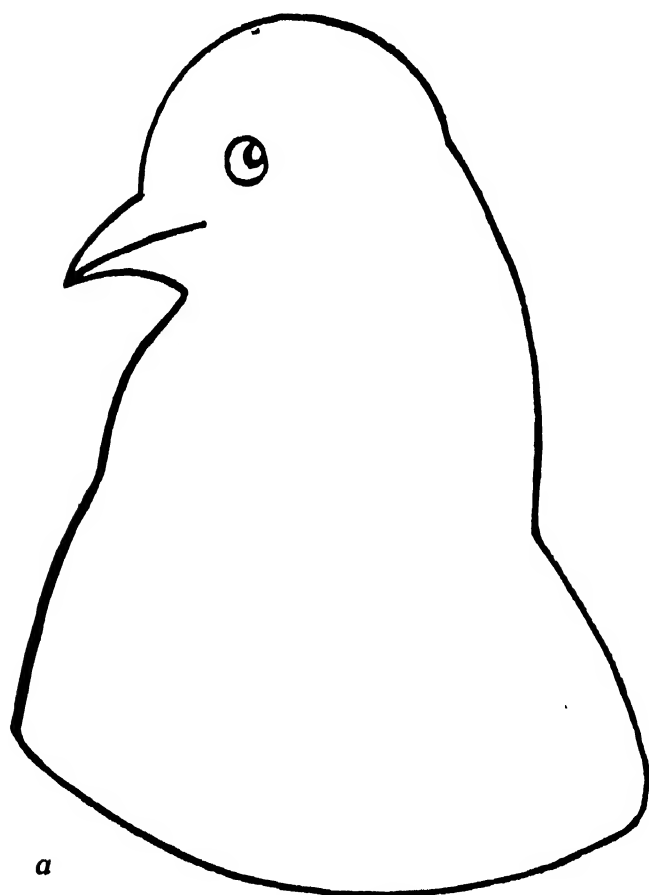


FIG. 83

- (a) *Useful Pattern for Egg Cosy*
(b) *Egg Cosy Finished*

cushions, etc. The thickness of canvas depends on what the work is intended for, but a good strong single-string canvas is best, as the holes are clearly defined and the material is strong. To keep canvas from fraying, the edges should be turned down, and a long tacking stitch used to secure them.

Of the borders, A shows weaving effect, done in several colours. This is obtained by many rows of "over and under," as in darning.

B shows a long short parallel design in straight

by sewing all left to right arms first, and then reversing

E shows a tacking arrangement, strengthened by looping a strand through the shorter tackings to make a flowing pattern. This method of catching threads through tackings lends itself to an infinite variety.

F, a tacking arrangement that is done in two tones of a colour, gives the effect of a flat link chain. The centre spots may be a double cross-stitch in strong contrast.

Wool Fringes

Tassels are easily made by winding the wool or other material about six times around a small book. It is well to wind the wool around a small stick of wood about $\frac{1}{2}$ in. in thickness in addition to the book, in order that the book may be easily withdrawn after the ends have been tied (see Fig. 85 a). When the stick is withdrawn, the wool will slip from the book easily. Fold the loop of 6 strands thus formed over on itself to make a smaller loop of 12 strands (Fig. 85, b, c, d). This loop is interlocked on the rug as shown in Fig. 85 h.

After interlocking is accomplished, cut each loop and a tassel will be formed. For a small rug or mat, a fringe may be made by using single strands of wool all cut the same length. These strands of wool are looped on by using a hook as shown in Fig. 84. It is the same stitch as used in rug making. A looped fringe for a little mat may be made by buttonholing the wool on to a ruler. When the fringe is long enough, it must be sewn to the mat before it is slipped off the ruler. (Fig. 83 b)

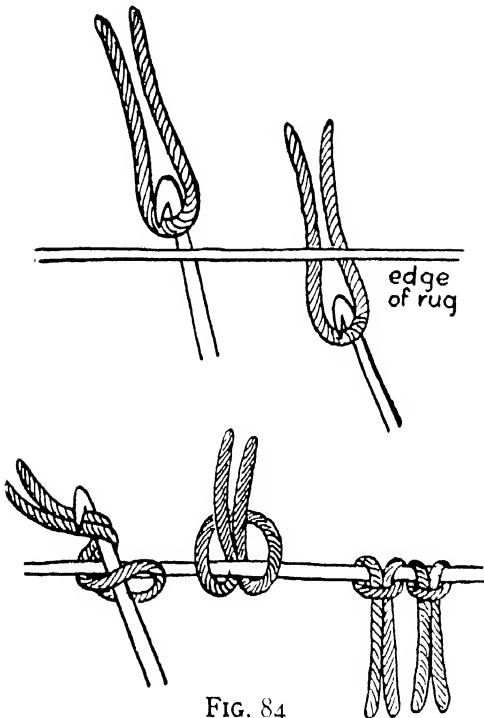


FIG. 84

How to make a Simple Fringe

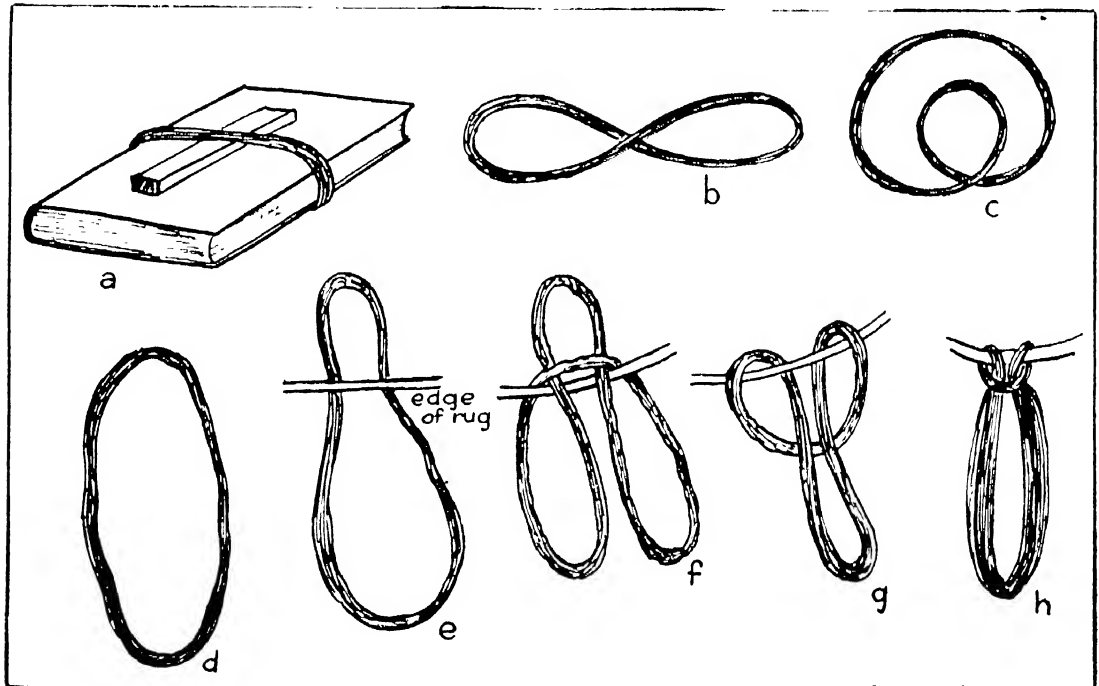


FIG. 85

A Fringe of Tassels

NEEDLEWORK SUGGESTIONS

FOR THE FOUR AND FIVE YEAR OLD

THE small child has an innate love of bright colour and decoration, which may be usefully developed in its very earliest stages. Every child also likes to *make things*, so if needlecraft is taught as a means to this end, it will be a subject he loves.

In the schoolroom of yesterday, needlework was taught merely as—needlework: row upon row of tacking stitches; line after line of hemming, seams and buttonholing, until the child was proficient. This is the reason why so many women of to-day dislike needlework in any form. But the woman of to-morrow will be different if the child is given the opportunity to learn in the natural way.

The Desire to Sew

Children of three or four already ask for needle and thread, and something to sew for their dollies. They know what they want to make, but the result is generally quite unrecognizable! This does not matter; the small boy or girl is all the time gaining practice in manipulating needle and thread; in holding the material, and in making stitches of a sort. As he gets older, the child begins to become critical of his work, he asks for guidance, and then is the teacher's opportunity for showing him how it should be done.

As the teaching becomes more formal, the teacher will suggest such articles for the doll's house, for personal or schoolroom use, for presents, as are within the child's capabilities. These will provide an incentive to work with greater care and exactitude.

The first formal needlework lesson will consist of stitches neatly set for the purpose of decoration. Coloured wools and threads should be used, thus satisfying the child's love of colour; and the ambition to make pretty things will grow, until the small girl has gained sufficient control over her needle to enable her to start

what is generally called "plain needlework," without this becoming distasteful. Of her own accord she will want the mats, bags, and pinafores she makes to be sewn neatly, before they are decorated with design and colour.

Suitable Materials

Let the child begin at once on textile materials—not on paper or cardboard. Textiles are best suited for decorating with woollen, cotton, or silk thread stitchery, because they are both soft and pliable.

Cardboard is seldom used now, as it is not a suitable material for decorative stitchery. The child tugs at the thread, a gaping hole appears, and the article is spoilt and the child discouraged. Another reason why the use of cardboard for stitchery lessons should be discouraged is that it is necessary for the child to concentrate its vision on holes which have been previously pierced for the reception of needle and thread, which is apt to cause eye strain. Also, it encourages a wrong method of using the needle. The child turns the card round and pokes the needle through from the back, instead of taking up the material on the needle, as he will do quite naturally when working on textiles.

There are, then, four important points to remember before the young pupil starts to "needlework," viz.—

1. That the material should be soft, and suitable for tiny fingers to handle.
2. That the article on which the child works should serve some real purpose
3. That the child should, at the outset, be shown how to handle the materials in the correct way.
4. That its love of colour and decoration should be encouraged and developed on the right lines.

Choice of Needle and Thread

Where possible, it is far better for a child to learn to sew using his eye as a guide (just as

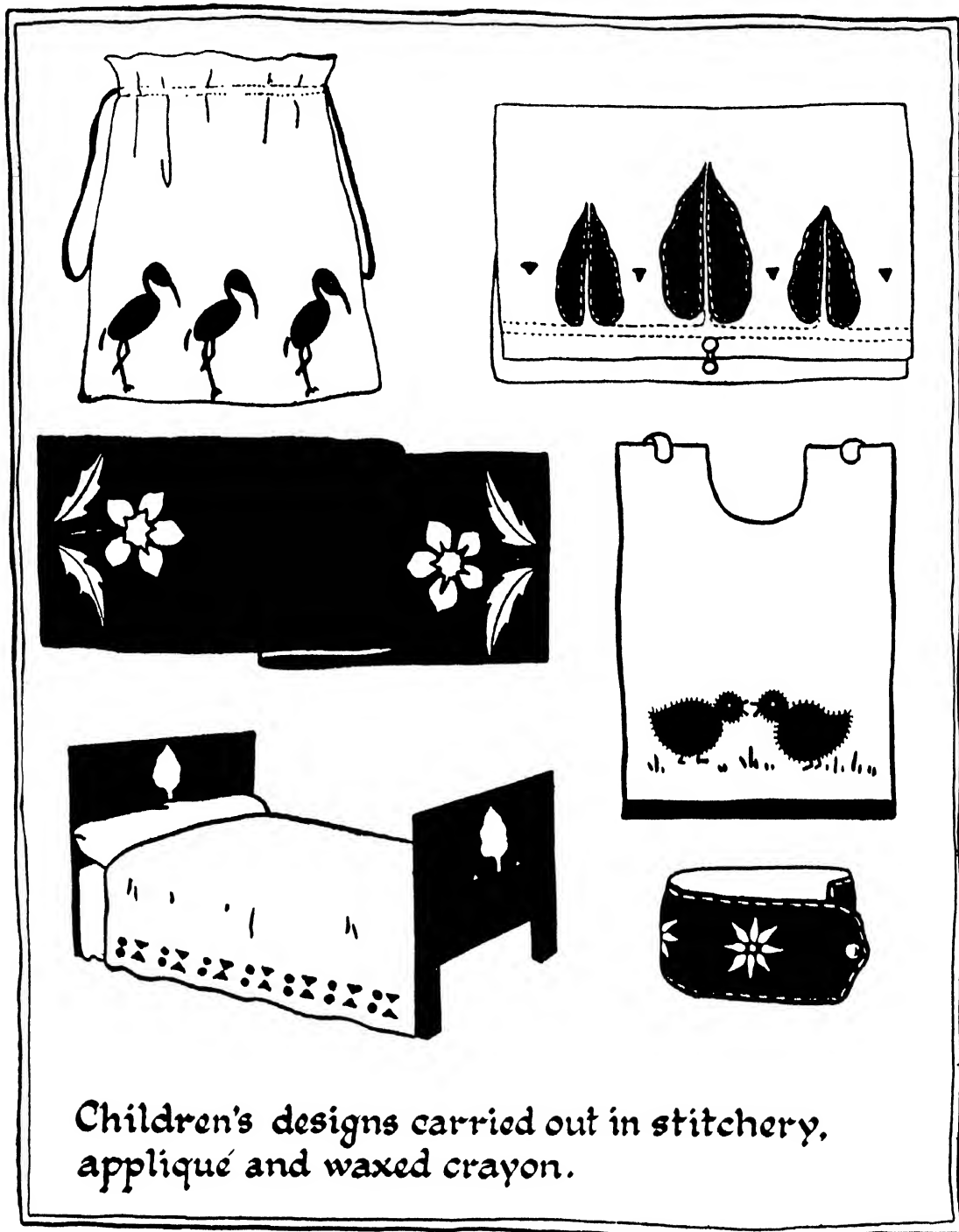
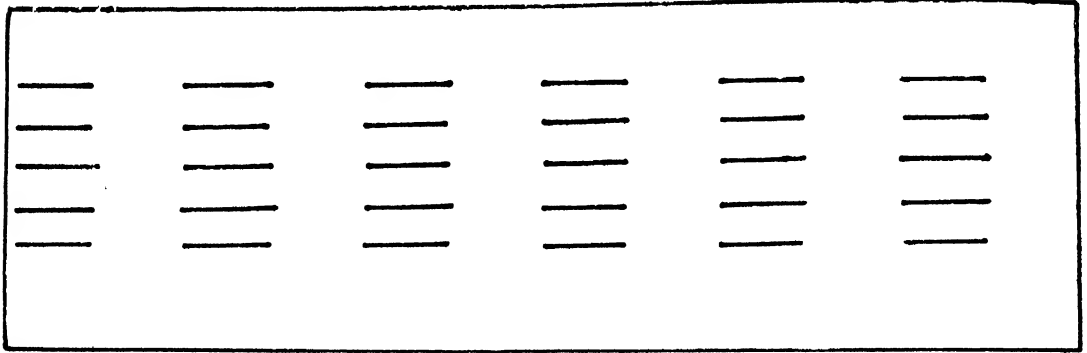


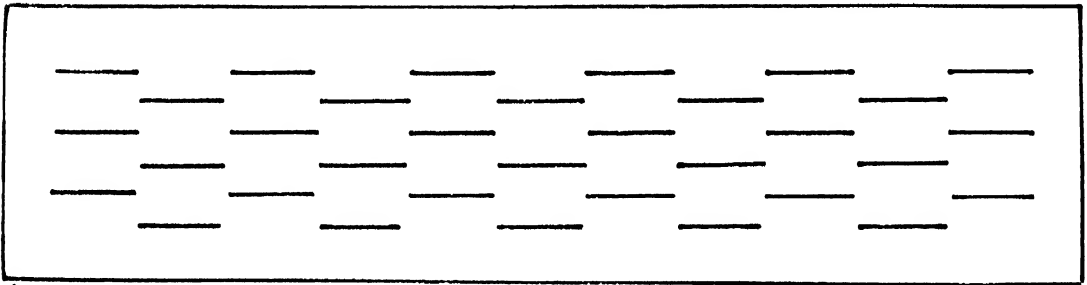
FIG. 86

he does in learning to draw) rather than by the aid of any ready-made printed design, or lines which can be followed. Hence, although the materials should be soft and loose, one should

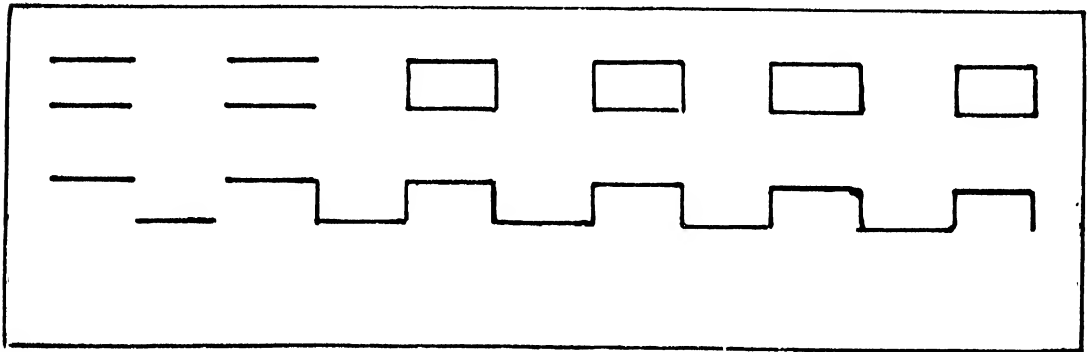
eyesight, as in the case of cardboard work. Woollen thread is preferable to cotton or silk for beginners, because it is soft and shows up better on all materials.



a



b



c

FIG. 87

First Exercises in Tacking Stitch

avoid textiles on which the threads of the weft and woof show too clearly, so that the child is not tempted to follow the threads with his eye, which involves considerable strain on the

Do not double the thread and secure it with a knot, in order that the needle shall not come unthreaded. It is a far better practice to let the child accustom himself from the very first

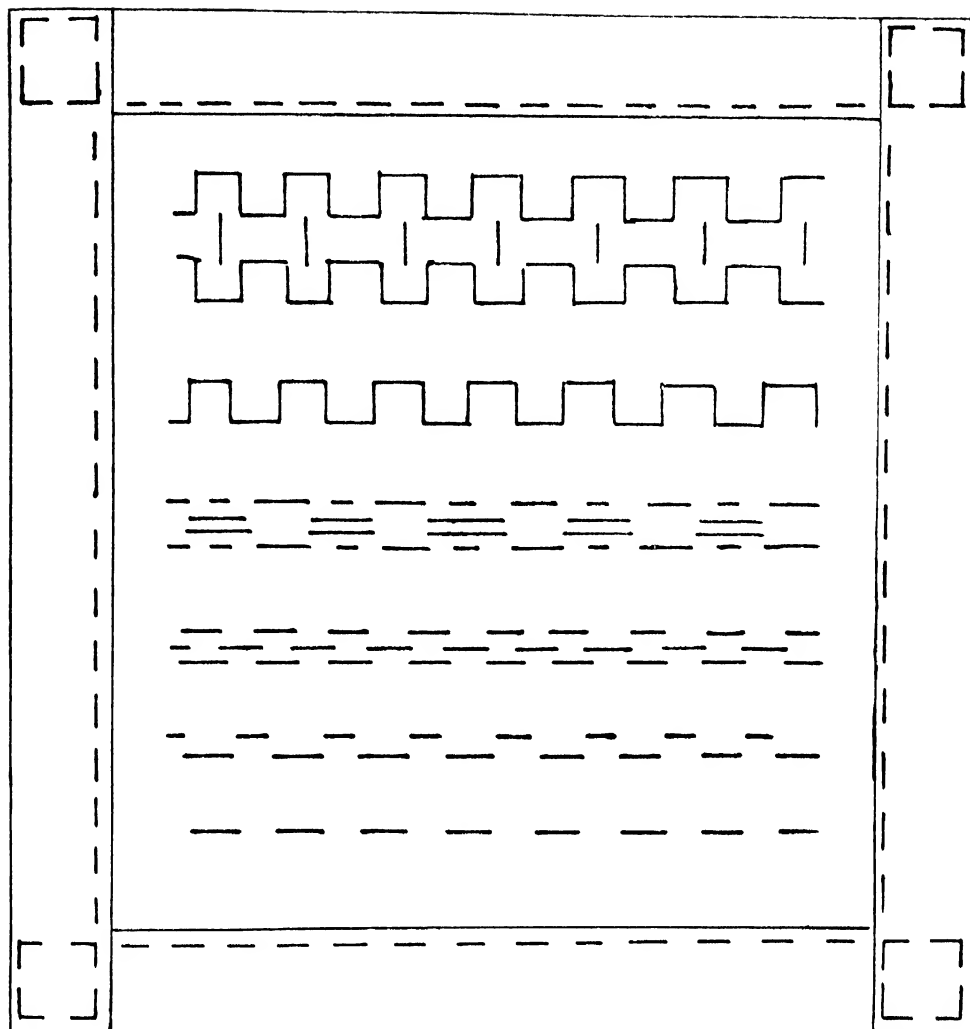


FIG. 88

A Sampler with Tacking Stitch Designs

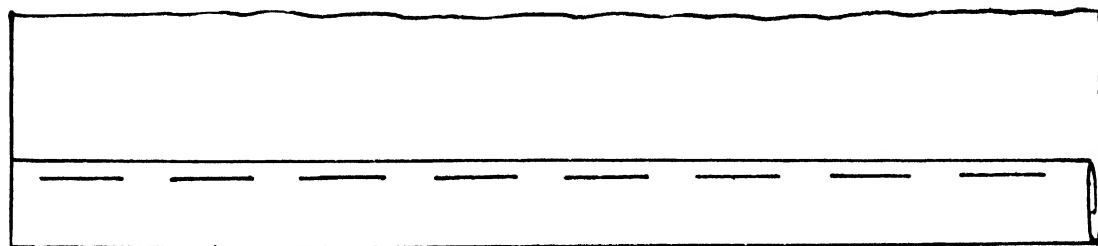


FIG. 89

The First Neat Hem

to managing needle and thread. This may be a trouble to begin with, but very soon the child will learn to hold the thread in such a way that it does not continually slip out of the needle. The child should also become accustomed to threading and re-threading the needle himself, but he must be given a needle with a large eye and a sharp point, which passes easily through

inch to an inch long, our object being to insist on the beauty of order and form, not on small stitches.

The child will soon learn to recognize the difference between bad work and good, and to be dissatisfied with uneven stitches and crooked lines.

When the child has had some success with

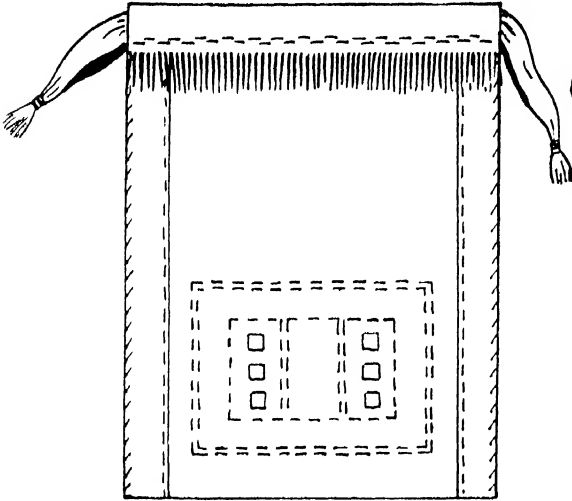


FIG. 90
An Easily Made Bag

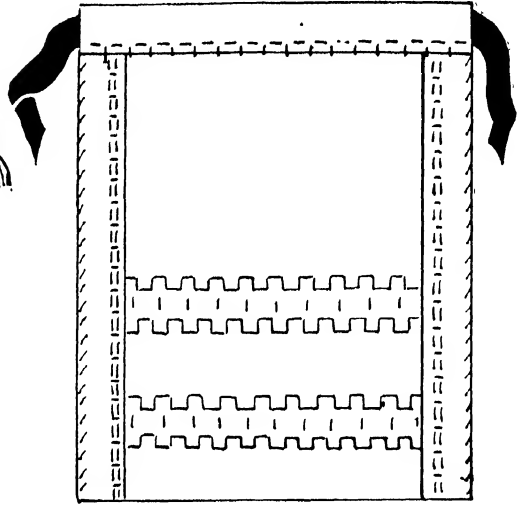


FIG. 91
Simple Stitchery Decorates this Bag

the material. Also, insist upon the use of a thimble from the beginning.

First Exercises in Formal Work for Children of Five and Six

1. Suggest that the child should make a rug for the doll's house, a table mat for mother, or a kettle holder with bright coloured borders. Allow the little girl to choose for herself what she wants to sew, then give her a piece of material—preferably coarse flannel of a grey or neutral colour, such as is used for floor cloths, and let her make lines of tacking stitches with coloured wools (Fig. 87 *a*).

Encourage her, from the very first, to make the stitches as even in size as she can, and to keep the lines as straight as possible; also to pick up the material with the needle, and not try to find the right spot from the back. At this stage, the stitches should be from half an

this elementary technique, he should make his first attempt in design, by placing the stitches in each alternate line immediately under the spaces of the line above, as in Fig. 87 *b*.

Then follow variations on this exercise, introducing the vertical stitch, as shown in Fig. 87 *c*. Children may also draw their own designs on squared paper, and thus carry out their own ideas.

Making Neat Edges

It is now time to draw the little girl's attention to the untidy raw edges of the material on which she is working, at the same time using the opportunity to explain a little about the processes of weaving. Show how, if the raw edges are left unprotected, the material will fray.

Evenly frayed edges are, probably, the child's earliest attempt at making a neat edge. This is quite a simple method by which the younger

children may finish off mats and little rugs, and the bottom edges of bags. But older children may be shown how neat are the hems of their skirts, and the edges of almost all the "needle-worked" articles they could name.

The little girl will now try to turn down an edge for herself, and of her own accord will set a row of tacking stitches in it to keep it down. She should then notice that there is still a raw

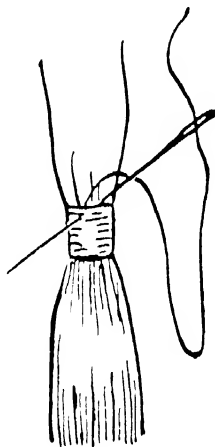


FIG. 92

Material Fringed to make a Tassel

edge showing, and that it must be turned down once again. This will afford practice in another row of tacking stitches, and since these will "show," the colour of the thread will need to be carefully chosen, and the stitches very neatly and evenly made (Fig. 89).

The pupil can now be shown the decorative effect produced by using stitches of different lengths. For example, let her make *long* stitches with *short* spaces, and *short* stitches with *long* spaces, and thus produce patterns as shown in Fig. 88. A variety of arrangements such as these may be used to decorate the hem, and the little girl will enjoy inventing her own patterns.

After a successful mat has been produced, the pupil may do similar work on a longer piece of material—say, about 8 in. by 24 in. When decorated, this can be doubled and made into a bag, as Figs. 90 and 91.

Blanket Stitch

Blanket stitch (Fig. 97 c) comes very easily to many children, and is an accomplishment of which they are very proud, especially if they are allowed to make blankets for their dolls' beds. Blanket stitch makes an ideal edging on all kinds of soft woollen materials, and delightful effects can be obtained by going round the edge three times, and using a different coloured wool each time.

Hemming with small stitches should not be taught until the child is at least ten years old. It is liable to produce eye-strain, and it is difficult and tedious. When the child is old enough, if her fondness for needlework has not been destroyed, she will want to learn hemming of her own accord.

Joining Materials

The time has now arrived for the pupil to be shown how to make seams, and the opportunity for introducing this lesson will come quite naturally when the two sides of a bag have to be joined together.

The first effort will be by oversewing with large stitches from right to left, but while the children are doing this, the teacher might be joining a bag of her own with a French seam sewn with tacking stitches.

The children will compare this with theirs, and finding it so much better and neater, will ask to be shown how. In their future work they will want to make seams in the "right way."

The edges at the top of the bag may now be frayed. Show the children how to turn it down on the right side, and keep it down with a row of tacking stitches in coloured wool. The child should then be shown how to make a cord to pull through the top hem, knot, and finish off with tassels. Fig. 92 shows material or ribbon fringed to make a tassel.

Other articles which can be made at this stage are kettle and iron holders, a cover for dolly's pram, blankets and pillow cases for the doll's cot.

FORMAL WORK FOR THE CHILD OF SIX AND SEVEN

At this stage coarse linen, casement cloth, and other thinner materials may be introduced, and thick cotton thread can now be used for embroidering, although brightly coloured wools, being very effective and decorative on coarse linen, hessian, etc., might still be employed at first.

Before learning new stitches, let the pupil repeat what she has already learned, but on the

and upright as a means of decoration on the various articles (Fig. 96).

Back-stitching should next be taught, first by filling in the spaces between the tacking stitches, and then by employing the usual method. Bold designs, such as large capital letters, squares, houses, etc., drawn by the child directly on to the material with a soft black pencil, could

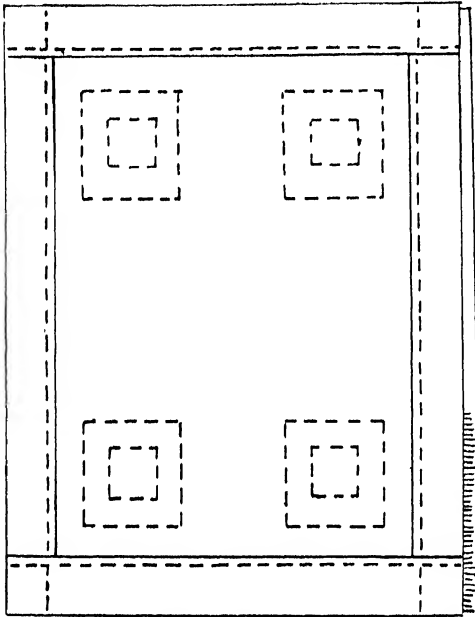


FIG. 93

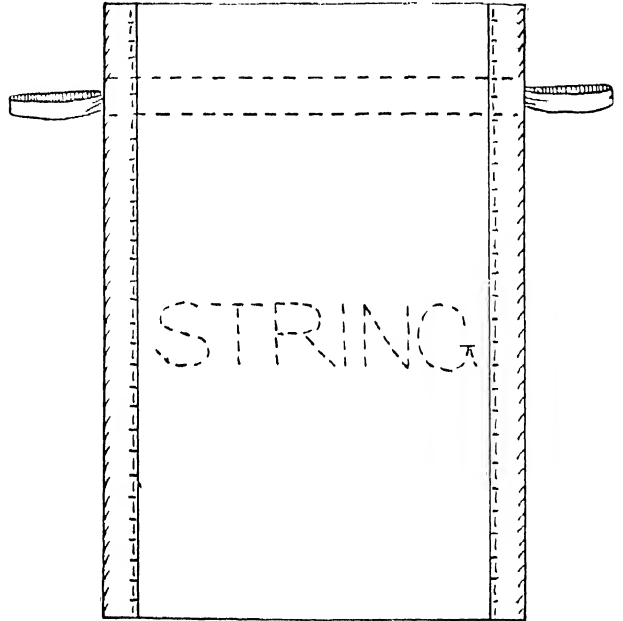
A Nightdress Case

FIG. 94

A Useful Gift for Mother

thinner material and with a finer needle and thread.

The little girl may now learn to turn down the hems by herself. It is not necessary for the child to tack first and then embroider, as it should by now be able to tack sufficiently evenly for the coloured tacking thread to serve as a decoration at the same time.

A far greater variety of useful articles can now be made. See examples shown in Figs. 93, 94, and 95.

Oblique stitches might now be introduced, and employed in conjunction with the horizontal

be outlined in back-stitch, and she will enjoy decorating her handiwork in this manner. Suggestions are made in Fig. 96.

For Small Girls of Seven to Eight

In the course of her seventh year the little girl has not only learned all the simpler stitches, but has also discovered in how many different ways these can be used, and has taken a delight in making many useful and pretty articles. If she is eager to learn still more stitches and to make larger and more elaborate things, she may

be shown chain and herringbone stitch (Fig. 97). The first might sometimes be used for outlining instead of back-stitch. The use of the second for fastening down the raw edges of rather thick materials should be explained and demonstrated, and blanket stitch is useful for securing the raw

The smaller pieces could be used for little table mats to be placed under hot plates, vases of flowers, etc., and also for kettle and iron-holders. The suitability of the material for any particular purpose should always be pointed out to the child.

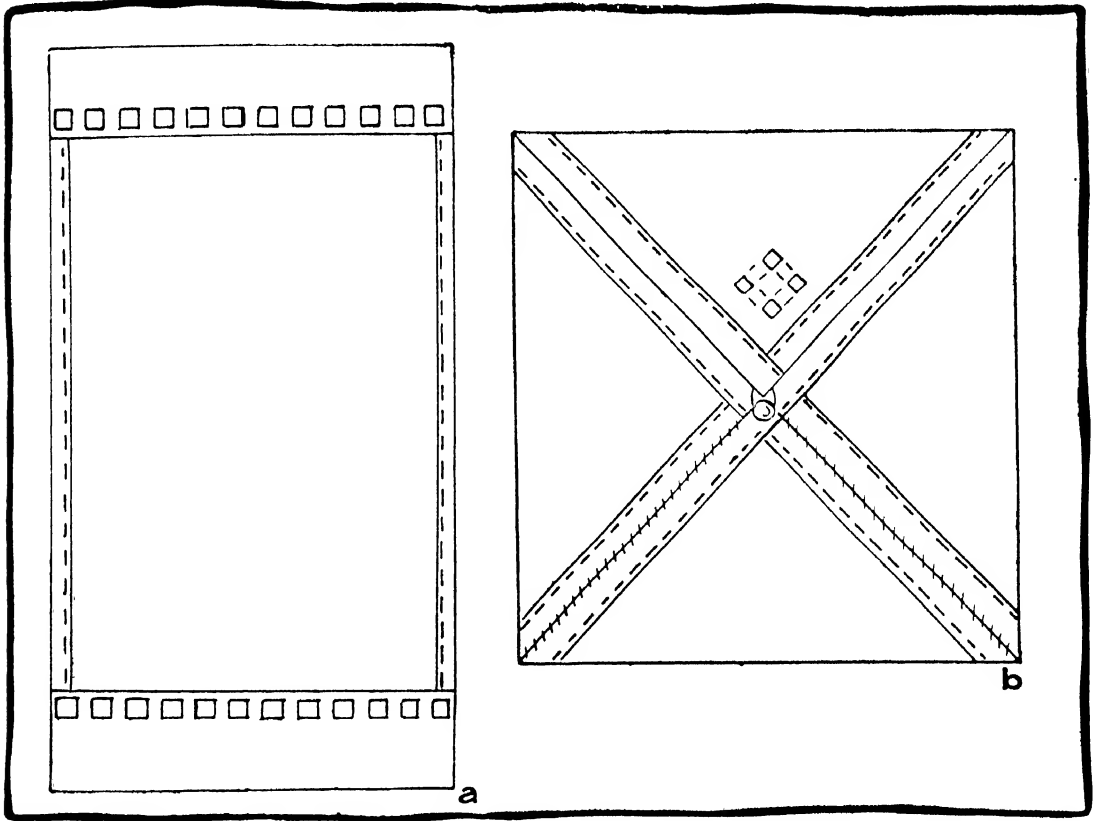


FIG. 95

(a) *Table Mat*, (b) *Handkerchief Sachet*

edges of a fabric which is too thick to turn under for a hem.

For this purpose, waste pieces of carpet-felt might be procured from a furniture store for a few pence. Should some of these pieces be sufficiently large, the children will enjoy making them into little floor mats upon which they can sit when working or playing on the floor. These mats may be coarsely blanket-stitched round the edges with thick wool, and decorated with patterns, not requiring a traced-out line, and, where possible, of the child's own invention.

Making Seams

At this period hemming should be taught; but at present, only with very large stitches—6 or 8 to the inch—and worked with a thread which contrasts in colour with the background (Fig. 98). The stitches should be even and sloping, and the child must be taught from the start to hold its work correctly, i.e. over the first finger and held in place with the thumb.

The use of a running or tacking stitch for

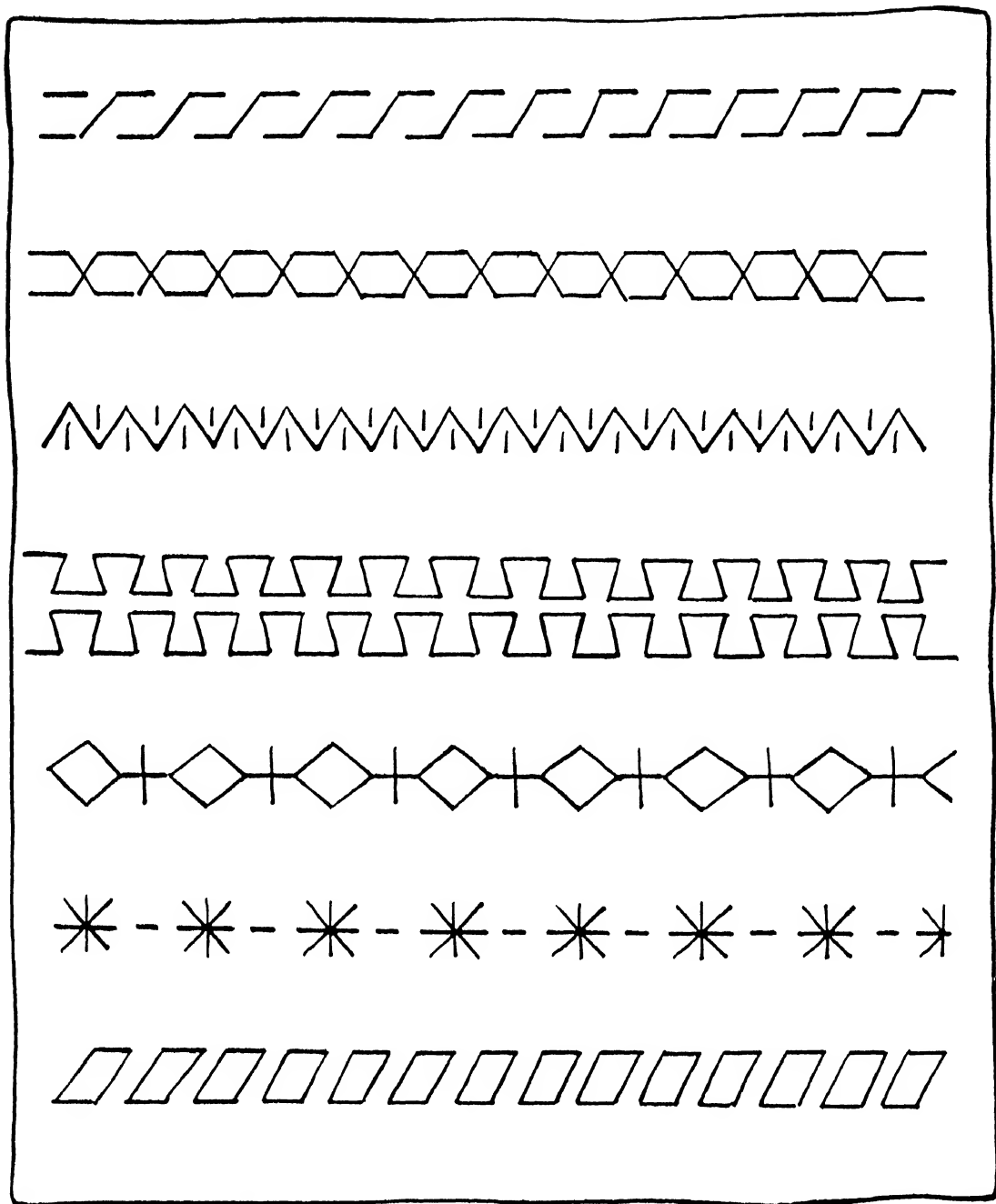


FIG. 96

Decorative Designs with Tacking Stitches

joining has already been shown (Fig. 99 *a*) preparatory to the teaching of run and fell (Fig. 99 *b*). French seams, sewn with tacking stitches, are useful for joining the sides of bags.

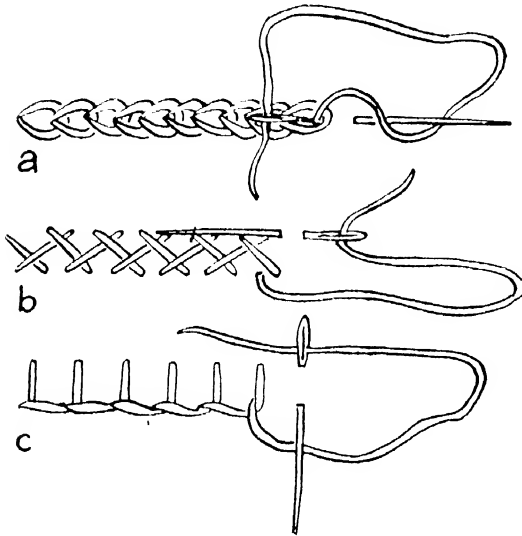


FIG. 97

(a) Chain Stitch, (b) Herringbone,
(c) Blanket Stitch

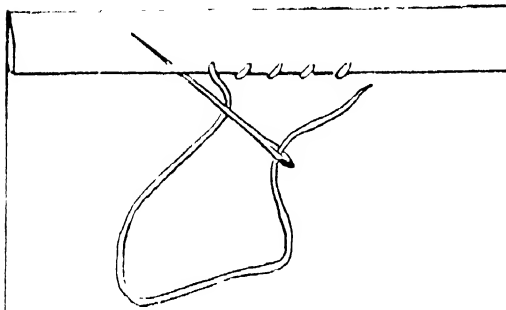


FIG. 98

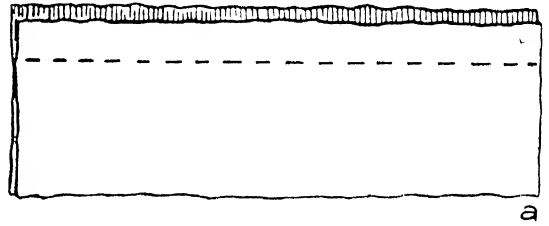
Exercise in Hemming (very much reduced)

Working on Coloured Materials

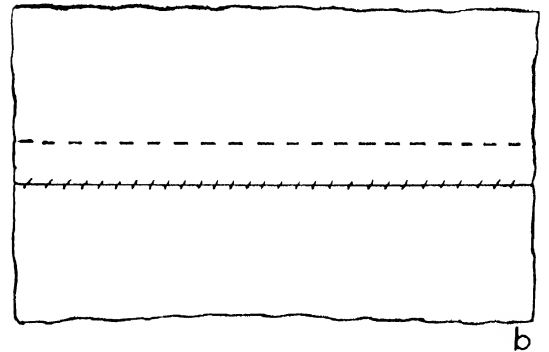
The child should be allowed to suggest the colours with which the material is to be decorated. But the taste of the child, like that of the savage, is often crude at this stage; and although the use of bright colours should not be discouraged, it is wise to develop the artistic sense by pointing out how such and such a colour looks prettier or softer in tone than

another. It is inadvisable to allow a child to make ugly things.

The teacher might suggest that her pupil could make a table-runner for her mother. There would then follow a discussion as to the colours already employed in the decoration of the particular room for which it is intended. The child says the walls are green, and suggests a green table-runner, or possibly a red or yellow.



a



b

FIG. 99

Run and Fell Seam

Here the teacher has an opportunity for pointing out that red or yellow might be a little too startling, and that the green might be a different shade, and therefore clash with the walls. She therefore suggests a soft blue or neutral background, with green stitchery and perhaps a little brighter colour introduced in smaller quantities. The teacher thus gives the child her first lesson in good taste, without destroying her natural love of colour.

Measurement Applied to Needlework

Here also may be given lessons in measurement, in readiness for the making of clothes both for the child and her dolls.

Each pupil should possess a tape-measure, which is kept in the child's own work bag. Fig. 100 illustrates a work bag which the little girl can make for herself to contain scissors, thimble, needles, tape-measure, and also her work. Initials should be embroidered on the bag, and the child will take great pride in her possessions.

The teacher should first discuss with the children the size and shape of the bag. How large should it be in order to hold both work and tools comfortably? She takes a tray-cloth or table-runner previously made by a pupil. The children discover that this article doubled and stitched together at the sides would make a bag. Is it long enough? Does it look too short for its width? All these matters are discussed, and eventually measurements are taken and a paper pattern cut. Thus the class has its first lesson in measurement, proportion, and cutting out.

After this, the children will be so interested in measuring that they will want to measure everything, and should be encouraged to do so. They can measure the doll's bed and make a coverlet; the floor of a room in the doll's house and make a carpet; the boy could measure the size of his toy motor and make a rug, and so on

But, except perhaps in the case of a feeder for herself or small brother, the girl should not

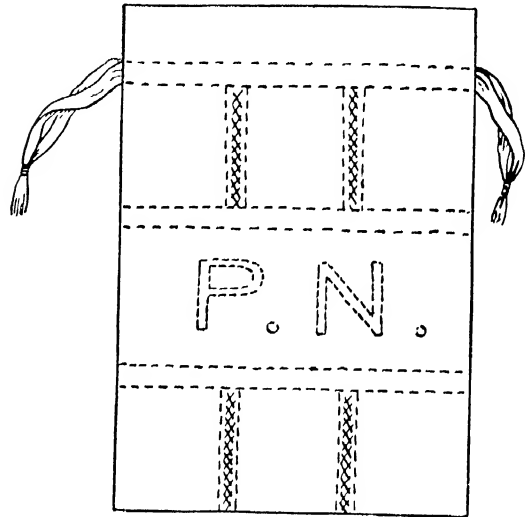


FIG. 100
Child's Own Work Bag

begin to make actual garments until a later stage.

WHEN EIGHT YEARS OLD

THE child having now mastered all the simpler forms of stitchery, she will be able to venture on more elaborate forms of embroidery, and be able, also, to employ them on larger articles, as she will now be able to work longer without tiring. At this stage the teacher may show her pupils how the blanket or buttonhole stitch can be employed in *appliqué* work. This should be bold at first, and the child encouraged to make her own designs. For these the very simplest methods should be employed, and, wherever possible, all cutting out should be done by eye. That is, the scissors, as previously the needle, should take the place of pencil or crayon.

For instance, the pupil wishes to cut out a leaf. A real leaf, of a simple form, should be folded down the middle and shown to the little girl. Let her then take a piece of material, fold it lengthwise and then cut out half a leaf, as

in Fig. 101 *a*. Let her make quite a number of these, trying to keep them as nearly as possible the same size and shape. Circles for flowers may be cut in the same way (Fig. 101 *b*). It is surprising how quickly a child learns to cut out a fairly true semicircle. If, however, this proves too difficult, pennies, half-crowns, saucers, etc., may be used as guides around which the child should draw directly on to the dark or light material with chalk or pencil, as the case may be.

Other simple shapes, such as hearts, conventional trees, etc. (Fig. 101 *c*), may be cut in the same way as the leaves, and the children will quickly discover suitable forms from which decorations can be made, and will take a delight in arranging them in effective groups. Motifs may also be cut out of cretonne and appliquéd on plain materials.

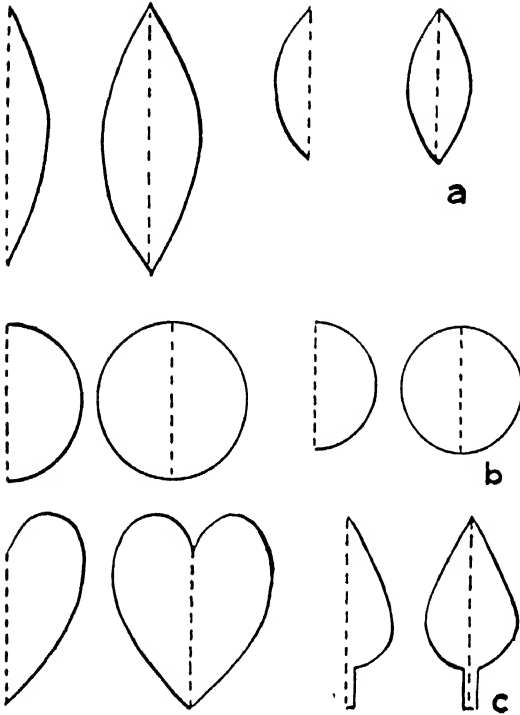


FIG. 101

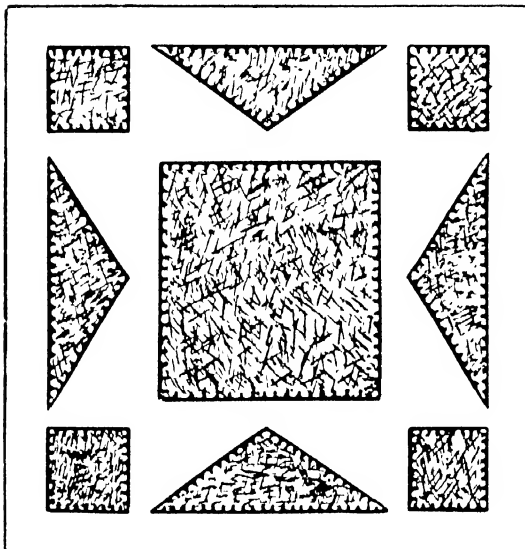
Cutting-out Motifs for Appliqué

FIG. 102

Cushion Square with Appliquéd Motifs

Design in Needlework

Entirely geometrical designs may also be used, but here it is very important that rectangles, triangles, etc., should be true (Fig. 102); and it is better, therefore, only to attempt this form of decoration where lessons in practical design have been, or are being, given. Then again, there are silhouettes of animals, trees, houses, etc. But these should be very simple in form and broadly treated, as the child is not yet ready to do very fine buttonholing, and

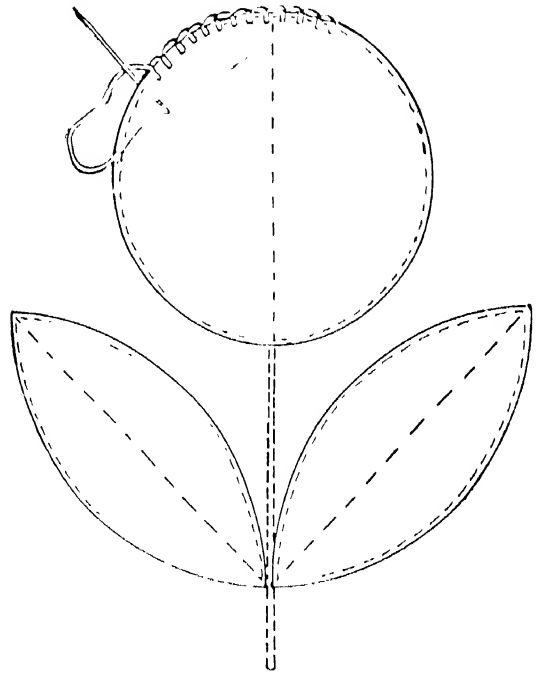
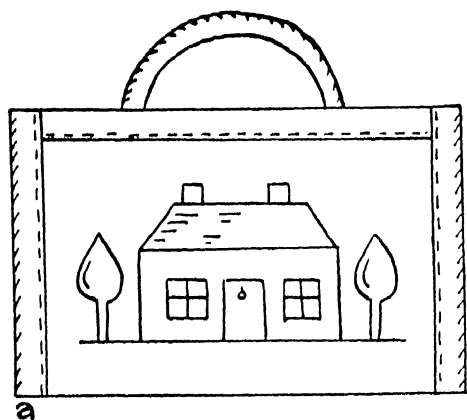


FIG. 103

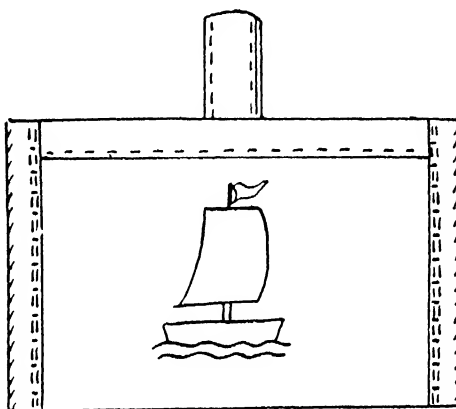
Appliquéd Motifs

cannot, therefore, manipulate tiresome little corners and irregular outlines.

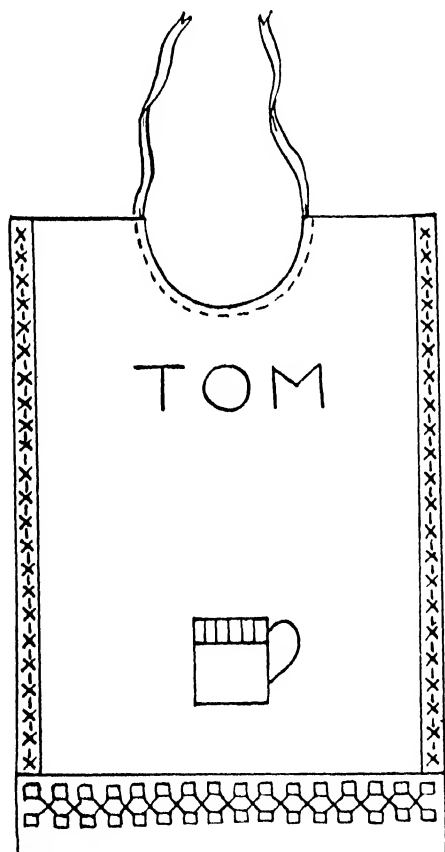
Wherever possible, it is best to *paste* the design on to the background, and allow it to dry thoroughly before beginning the stitchery. Clear paste made with flour and water is very useful for this, as it does not stain the fabric. Then let the pupil tack round the edges of the design, before beginning to buttonhole round the outline (Fig. 103). Suggestions for articles decorated in this manner are shown in Figs. 102, 105, and 106.



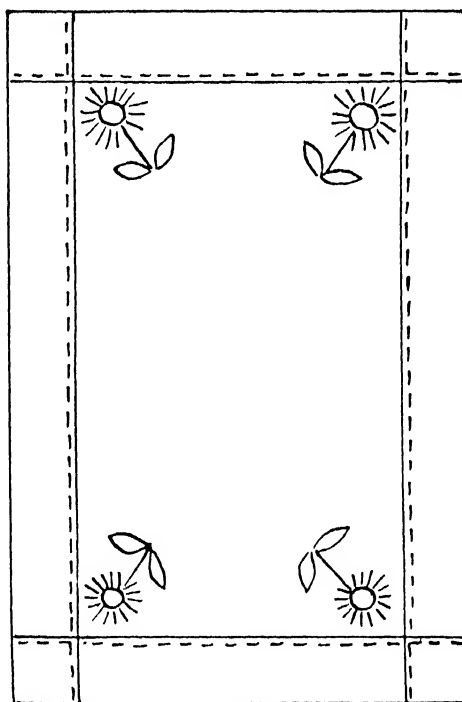
a



b



c



d

FIG. 104

(a) and (b) are Tea Cosies, (c) a Present for Little Brother, (d) a Table Mat

Simple Cutting-out and Garment Making

Both boys and girls might now begin to make simple garments for themselves. As boys are fond of dressing-up, their energies might be employed in this direction. They will take interest in making "Red Indian" suits and

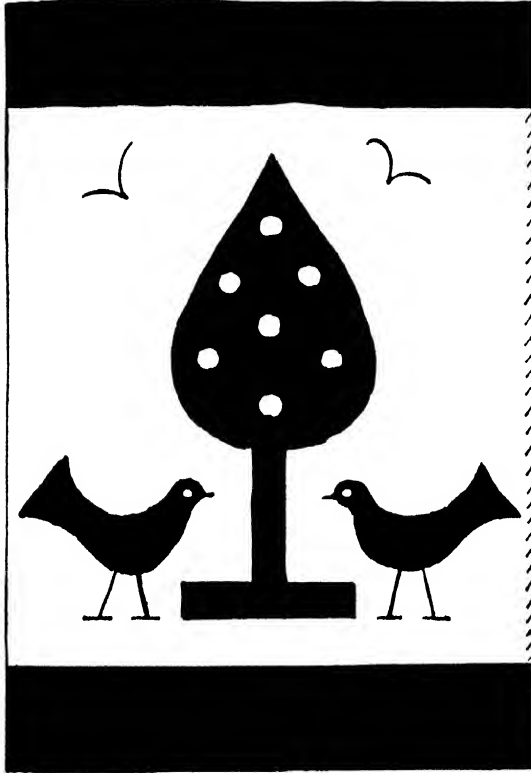


FIG. 105

With Appliquéd Designs

other primitive forms of dress, where their imagination can have full play in the choice of design and colour (Fig. 107)

The girls, meanwhile, can make many different garments based on the simple magyar shape, and these, again, will be suitable for decoration with many forms of stitchery

In the case of both boys and girls, they should always take measurements before cutting out a garment, although for the present it is best to let the children see both finished garments and drafted flat paper patterns before trying to cut the latter themselves.

In the case of the magyar, the length from neck to hem (Fig. 108 *a-b*), and round the chest, *c-d*, should be taken; and it should be carefully explained that it is necessary to allow considerably more room around the chest than a tight measurement would give. The measurement from shoulder to hem *e-f* must also be taken, and that of the base of the neck, although, of

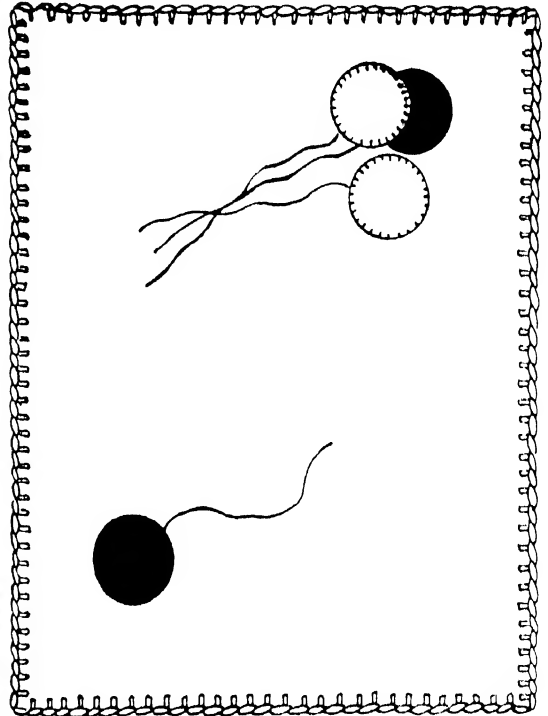


FIG. 106

Suggestion for Doll's Pram Cover

course, in the case of a slip-over garment with no fastenings, the opening must be sufficiently large to go right over the head.

Explain the dip of the neck in front, and let the child experiment in paper without too much help from the teacher. Having learned to cut out leaves, etc., on the double, the pupil will quickly see how this method can also be employed in the cutting out of garments (Fig. 108).

Trying On

The paper should be sufficiently strong to allow of its being tacked together, so that the

pupil may try it on and see for himself where it is wrong. This is a far better method than that of supplying patterns all ready cut, or by following fixed rules, and both boys and girls will enjoy the fun of their own and one another's mistakes.

The side seams of these large garments might either be joined with a running stitch, and then the edges felled by means of bright tacking stitches or other decorative stitchery; or all edges could just be hemmed and then joined by coarse over-sewing (Fig. 94), and necks and curved edges bound with bright braid (Fig. 110).

Fancy-dress garments could be made of coarse hessian, or house flannel, and the lower edges fringed. Decorations might be done in *appliqué* or in outline designs, worked with thick wool.

Little girls' frocks, pinafores, petticoats, etc., can be made of white or coloured casement cloth, and ornamented with decorative stitchery (Fig. 109) or *appliqué* designs (Fig. 110).

It is probable that at this stage the boys will want to make trousers to complete their Indian dress, and the girls will need knickers to match

their frocks. These garments might appear somewhat complicated in form for such young children to attempt, but the teacher can help to cut these out ready for the child to sew.

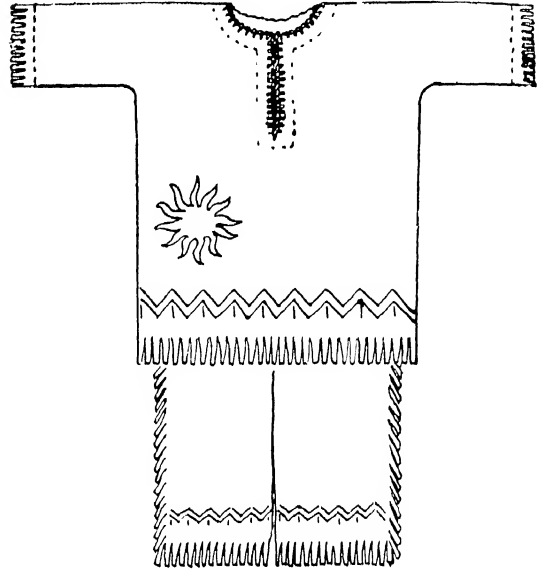


FIG. 107

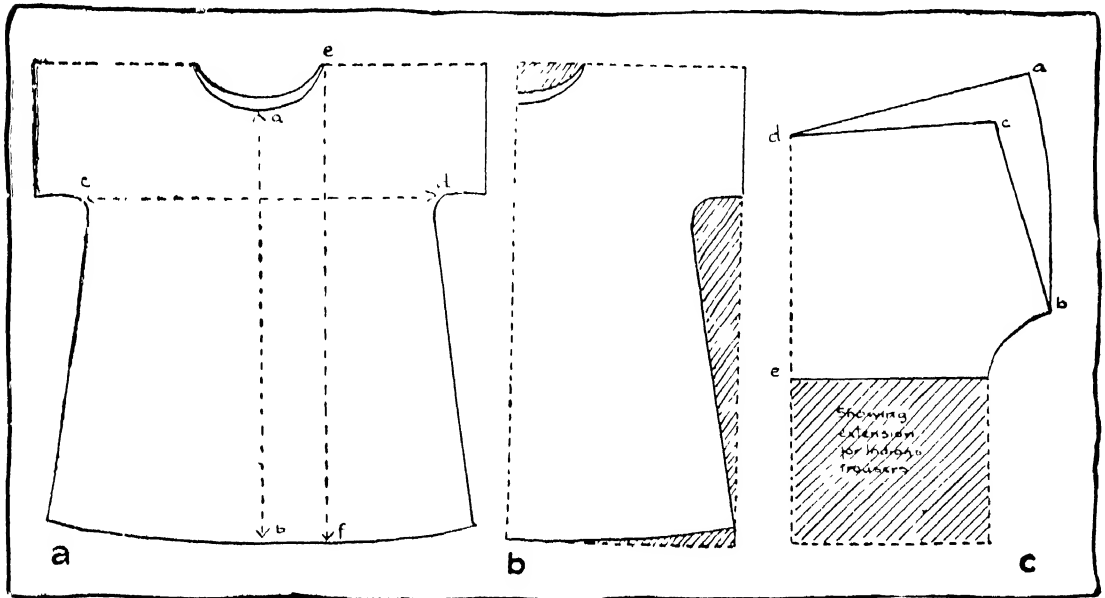
Red Indian Suit

FIG. 108

How to Cut a Pattern for Magyar Frock and Knickers

In this case, the children should again examine both the made-up garment and the flat paper pattern. It should be explained to them how plenty of room is necessary for sitting or bending, hence the length of Fig. 108 *a-b*, as compared to *c-b*. After this, measurements should be taken, starting with the side length from waist to knee *d-e*, the waist, and so on, and a paper pattern

child's imagination. This can be undertaken in the needlework class alone, but it is better still if it can be done in conjunction with other forms of handwork.

The furnishing of a complete doll's house affords plenty of scope both for needlework and simple carpentry. But as handwork is dealt with in another section, the following

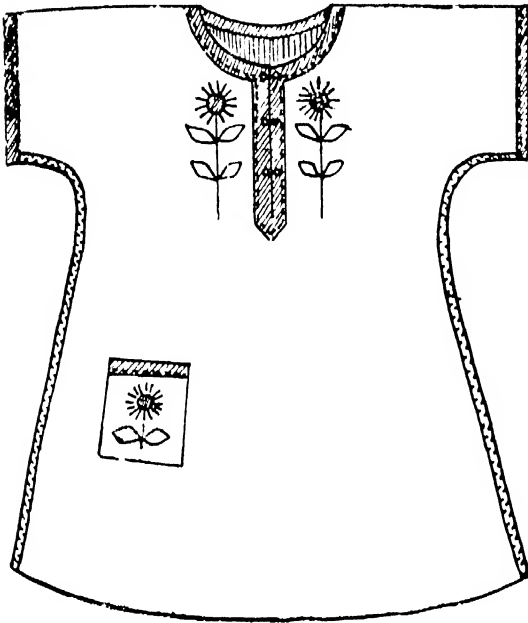


FIG. 109

Magyar Frock

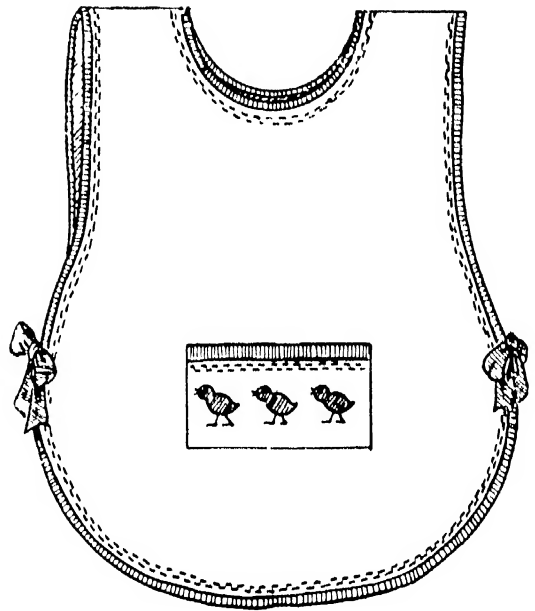


FIG. 110

A Pinafore for Little Sister

cut before an attempt is made to cut into the material.

In cutting out both trousers and knickers, the waist should be made sufficiently large to allow the garment to be drawn up on a cord or elastic. The joining up of the legs, front and back, is not beyond children of eight years old, if the meeting-points of seams are carefully pointed out and explained.

Co-operative Work

From six years of age, co-operative work will be found interesting and stimulating to the

suggestions apply only to that which can be done in the needlework classes -

Carpets and rugs for the floors.

Window curtains.

Cushions, bed-coverings, and tablecloths.

If the children are taking part in school theatricals, they might also co-operate with the higher forms in making both costumes and stage properties.

Another form of work in which children are always ready to co-operate is in the making of garments for other children, who are either in hospital or in some institution.

THE PROJECT METHOD

Definition of Project

A PROJECT, according to the dictionary, is a plan, a scheme, or a contrivance. "To project" is to throw out or to throw forward.

The "Project Method" in education is based on this idea of casting forward in the mind, thinking about something completed before work on it is actually started. It is no new method, for every good teacher has always had an aim and has planned her work so that she may realize her aim. But, in the method which is commonly called the "Project Method" today, the *child's* aims are recognized, and he is given opportunities for working these out.

The Project is the Child's

The teacher does not broadcast *her* aims to the children. She creates an atmosphere in which the children's ideas will develop freely, and provides an environment where their aims can be realized.

The child's idea may be a very simple one, that of making himself a cart, an aeroplane, or a garage for his toy motor. The teacher allows the child to carry out his plans following the line of his interest and giving her help when it is needed. She is apparently following the child, and not leading him. But she is doing much more than this. She is planning how to achieve her aim, which is a much bigger one than that of the child; she plans to help the child to grow into a well-balanced adult, able to live a full life in the conscious realization of all his powers.

The Teacher's Aim

The child's project, an intensely practical one, is adopted by the teacher, who organizes her own aim in accordance with the child's. When the young child is making a toy aeroplane, the teacher finds many opportunities for helping him to make social adjustments; he learns to

share tools and to put them away tidily, to take turns, to give way to others, to help others, to give and take criticism cheerfully. The older child making an aeroplane is encouraged to



FIG. I

A Wedding A project worked out by children of 6 years of age

learn more about aeroplanes, to refer to books and magazines, to collect and classify aerial pictures and maps, to write notebooks and diaries, to measure his models accurately, and to calculate distances and speeds. Thus, both child and teacher work out their own projects

How Does a Project Begin?

In the modern Infant School with its atmosphere of freedom and purposeful child activity, it is easy to discover the direction of the child's interests. Just as the children's lives vary according to their circumstances and the district in which they live, so will the play vary in certain particulars, and the early activities in one school will not often be exactly like those in another school, although the main idea may be the same.

Most little children are interested in the home and its activities, and also in the little world just outside their home environment. The first seed of a project is sown when the little child

begins to reproduce, in play, the activities of the home. A few boxes, a dolls' house, a clothes horse or a table may be used to represent the house, while one or two chairs, a small table, some pots and pans, a few cups and saucers help to furnish the "home." Soon the "mother" is busy sweeping the house and preparing a meal, while the "father" pretends to go to work and arrive home in time for dinner. The boy imitates his father's work, whether it be pushing a milk cart or working at a carpenter's bench. The little girl's pretence of shopping may lead to the starting of a class shop with measures, scales, goods, labels, price tickets, money, and her pretence cooking may lead to real cooking with the reading of recipes, accurate weighing of ingredients. The boy's work at the bench, e.g. making an aeroplane, may lead to an aeroplane project with its attendant developments. It may be seen, therefore, that the child's free play may lead to organized activities in buying, selling, cooking, painting, reading, writing.

Play with Water and Sand

The young child's play is largely haphazard, and his interest span short. Water and sand probably hold the attention of the child in the baby room longer than anything else. When he first plays with water he is interested only in splashing, in filling and emptying jars, in dropping stones and sticks into the water, in sailing corks and little boats. The teacher knows that the child is learning much more than is apparent. He is learning how to control and co-ordinate his muscles, he is learning how to measure, he is observing that certain things float and that others sink, he is counting the number of times he has to refill a small jug in order to fill a larger one. Thus the child's play has a twofold aspect, he regards it merely as play, while the teacher regards it as a channel of education.

Providing Opportunities and Materials to Further Interests

The teacher's attitude to the children and their play is very important, especially in the early stages, for any repression on her part will

limit them and stultify their ideas. Freedom, with harmony between the children and teacher, is ideal. When this exists, new ideas are constantly springing up from the children's play. These ideas are led out and encouraged by the teacher, projects develop naturally, and both teacher and children realize their aim.

Teachers are often hampered by their notions as to what are the right and the wrong materials to have in school. There can be only one basis of judgment, that of the well-being of the child. Teachers would do well to ask themselves the following two questions in relation to any material

1. Is this material a right one for the child at his stage of development?
2. Will his development be hampered if he does not have this material?

The Question of When and in What Order

Another point which sometimes hampers teachers when they wish to teach by this method is their retention of fixed ideas as to *when* the child shall learn certain things. For



FIG. 2

Concentration develops naturally when the children are allowed to follow their own lines of interest

example, she may think that the child should learn about money after he has learned to do addition and subtraction sums in tens and units, or she may believe that science teaching should be postponed until the child is eight or nine years old. Nevertheless, it may be that the child's interests lead him to do addition and subtraction sums in money (e.g. in a shop) before he uses the four rules in tens and units, and that his early interests (e.g. playing with water) may be the means of teaching him elementary facts in science. The teacher must take a long view, realizing what she wishes the child to learn, and seizing every opportunity for helping him to greater knowledge. The child's interests should never be forced in another direction so that he may learn, at some particular time, that which the teacher thinks he should learn. She must achieve her aim through the medium of the child's interests and must keep her own ideas fluid, so that she foresees all the possibilities of his activities.

Three Types of Project

Generally speaking there are three different types of project.

1. Those of individual children, i.e. the child's own project which is the outcome of his personal desire or need. For example, the child wants to make a doll to put into her new perambulator.

2. Projects which develop as a result of some suggestion on the part of another child, a group of children, or the teacher. For example, one child suggests having a play, others co-operate in carrying out this project by taking parts, making costumes, scenery, etc.

3. Projects which arise because the child is part of a larger community, i.e. the school. For example, sharing in the general project of having a Harvest Festival, a Christmas or a Hallowe'en Party.

How Wide a Field do Projects Cover ?

It is often felt that while some subjects are best taught by means of projects other subjects do not lend themselves so easily to this method. Although many subjects enter into most pro-

jects an attempt to force every subject into any one project results in artificial correlation which has nothing in common with the project method.

The subjects which rightly enter into any project are—

(1) Those which arise naturally in response to some interest or some need connected with the project, and,

(2) Those which the teacher is able to introduce while stimulating the children's self-chosen activities.

Examples

When the boy who has made models of trains and a railway station, wants to know where the real trains go when they leave the station, geography in a simple form (in this case some idea of the railway routes to other towns) would obviously enter into the child's project.

The giving of a party may entail the sending of invitations and thus a need to be able to write a simple invitation card arises. When the teacher shows the children how to write "Please come to our party," she is introducing reading and writing into the project.

Guidance Necessary

The project method gives the children the best possible opportunities to learn. It does not, however, take the place of common sense, wise guidance, and supervision. The teacher must understand how to help her children to develop their interests so that these lead onwards and outwards. She must also help them to retain the results of their learning if she hopes to make a success of her work.

Projects do not Cover the Whole Curriculum

She must realize that some subjects are an interest in themselves and that opportunities should be provided for the development of these interests. For example, most children love music, rhythm, percussion bands, and dancing. At some stage the average child becomes intensely interested in reading. She would be a very short-sighted teacher who did not provide

opportunities for engaging in these activities apart from projects.

Widening a Child's Interests

The child has many interests which provide many sources of learning. These interests are often unbalanced, but by careful observation the wise teacher can generally find ways of balancing and widening them so that eventually they lead out in other directions.

A child may be specially interested in drawing and painting. She paints and draws numerous pictures and tells her teacher and friends what they represent. She is learning to express her ideas, to control the muscles of her hand and arm, to manipulate pencil, chalk, and brush.

The teacher realizes that here is an opportunity to widen the child's interest so she shows her how to write the word "Mother" under the picture the child has drawn of her mother. She tells her what the word says and the child attempts to copy it under her picture. The girl now wants to write "what it is about" under other pictures she makes, and thus begins an interest in reading and writing as a direct outcome of an interest in drawing.

The child may find this extension of her interest so absorbing that she continues to paint and to write words and sentences for some time. In this case, the teacher may again widen the scope of the child's activity by showing her how she can make her own little picture-reading book. On the other hand, if the child's interests take a completely different turn, the teacher will not endeavour to force them back into the old channel, but will be ready to help the child along the lines of her new interest, while, at the same time, she will find opportunities for linking up the child's interest in drawing, reading, and writing so that this interest is kept alive.

A Good Example of Expanding Interests

An instance of this occurred when Joan who had made her own "Picture Book" began to spend a good deal of time in modelling with clay. She made tarts, buns, biscuits, and loaves of bread. At first, she made no attempt to pre-

serve her confectionery but "baked" a fresh supply each day.

One day she set her goods out on a tray and said "Look at my shop!" The teacher remarked that the chocolate buns looked rather white and that they would sell better if Joan painted them brown. She also suggested that Joan should make a few tickets for her shop.

Soon the little girl was busy painting her goods and making tickets advertising them. She told the teacher the words she wanted to write on the tickets, and the teacher wrote them down in a little notebook which she gave to Joan.

Joan then began to "sell" her cakes and bread. This led to the making of price tickets, the use of coins, and later on to the making of posters advertising her shop.

The way in which Joan's interest in (1) drawing and painting and (2) modelling were widened are summarized below.

Drawing and painting: Talking about her pictures—watching the teacher write words and sentences—copying these—making her own picture-reading book.

Modelling with clay: Making cakes, etc.—painting the cakes—watching the teacher write the words "buns," "cakes," "home-made bread," etc—copying the words—making price tickets—using money—selling goods—painting pictures to advertise the shop.

How Can Sufficient Practice be Given in the Tool Subjects?

In large classes there is often some difficulty in organizing the work so as to give the necessary practice in the 3 R's. There is no reason why individual work, group and class lessons should not be used in conjunction with the projects.

At first the child is interested only in the words he needs for his pictures, the numbers he uses in his shop, but, later on, he becomes interested in other reading material and number operations. When this stage is reached the teacher will find a means of supplementing the knowledge the child has gained incidentally in the tool subjects by providing some systematic training.

A shop project involves much number work. The children require a knowledge of simple arithmetical operations in order to carry out their project. A group or class lesson on how to add up bills is both interesting to the children and satisfying to their needs. Such a lesson, when the children are ready for it, is a great time-saver. Individual work with apparatus designed to give the children practice in the work taught in the lesson helps the children to retain the knowledge acquired.

There should always be a basis of actual experience before any practice work is given, and care should be taken to ensure that the children see the purpose of the work they are doing. Time should be taken, where necessary, to develop a feeling of need for the practice work by providing experiences from which such needs arise.

Testing Progress

It is essential that some sort of record should be kept of the knowledge each child is gaining from his activities. The teacher should test her children from time to time from the point of view of minimum attainments. A record of such tests will show clearly where the gaps occur, and as new situations arise and new knowledge is gained these gaps can gradually be filled in.

Teaching Desirable

In most instances it is a wise plan to supplement the learning derived from projects by providing sufficient teaching and practice work to acquire an adequate degree of attainment.

The amount of supplementary work required will vary in each circumstance, depending on the amount of knowledge the children acquire from the projects in which they participate.

Attainments

If the children fail to reach the standard of minimum attainments, the teacher should check up on her work by asking herself such questions as the following:—

Have I provided the best opportunities I can for the children to learn?

Have I provided materials which stimulate activities through which children learn?

Have I been aware of the "avenues" which would have led the children to further knowledge?

Have I stimulated the children's interests in their projects sufficiently to carry over into the practice work?

Much time is often wasted on what may be called useless projects. "Yes, it all looks very attractive, but what are the children learning?" has been asked over and over again by adherents to the subject method of teaching. The teacher who uses the project method should ask herself this question and organize her work in accordance with the answer.

The Project Method and the Time-table

In the Infants' School the time-table is generally planned on such broad lines that there is no difficulty about allowing the children to develop their projects without interruption. Periods are often set apart for music, games, stories, and poetry, but these are arranged at such times as will not cause interference with the longer periods set apart for activities connected with projects. In the same way when the children reach the stage when more systematic training in the tool subjects is found to be advisable, the earlier part of the day can be reserved for this purpose.

In the following pages are described some projects which have been worked out successfully in a large Primary School.

A Home Life Project

Number in class 40. Ages 5-5½ years.

At the end of the school year the children moved into a new room. They found that the room contained several large, empty, wooden boxes which had been left behind by the previous class who had used them as stalls for a bazaar project. There was also in the room a collection of dolls, doll beds, doll tables and chairs, toy irons, ironing board, washing tubs and washing boards, sets of pots and pans for use in cook-

ing, tea sets, tea cloths, brooms, dusters, large wooden bricks, two doll perambulators, and a milk cart.

The children had played "mothers and fathers" a good deal before, using a screen house or odd corners of the room for "homes." They immediately set about finding new homes in



FIG. 3

A home life project helps the children to gain habits of cleanliness. A "family" washing up the tea cups after giving a party to their friends.

their changed environment. Some of the children made houses by placing bricks on the floor to represent four walls. Inside the walls they placed pieces of furniture and equipment necessary to their play. One group seized upon the empty boxes, and by placing one box on top of another made homes which were the envy of the less resourceful members of the class. The latter soon became dissatisfied with their more simple homes and asked the teacher if they could have boxes too. When she said that there were no more boxes at present, the look of dismay on the faces of the children made her decide to call the class together to discuss how better homes could be obtained.

When the teacher asked the class how many of them would like to make houses with boxes

if she could obtain some more, one boy said that he did not want to play "mothers and fathers" any more, but that he wanted to be a milkman. "I'll go round to the houses with the milk cart and see how much milk the mothers want," he said. "I'll be a greengrocer then," said another. "I'll have a shop and the people can come to me to buy their fruit and vegetables."

Homes or Shops?

Other children decided to have a dairy and a grocery, while a large number felt that they still preferred to have homes.

The children were asked to decide what they wanted to do so that groups could be formed. The teacher pointed out that the homes and shops must be made before they could be furnished and equipped. She also pointed out that not everyone would be able to be a shopkeeper or errand boy at the same time, but that it would be necessary to take turns in being shopkeeper, cashier, etc.

The teacher posted up a large notice as follows —

We are going to have homes and shops.
Which do you want? Write your name below

Home	Dairy	Greengrocer's shop	Grocer's shop

The teacher helped the children to read the notice and explained what they had to do. Many of the children were unable to write their names correctly from memory, so the teacher provided them with "name-tickets" from which to copy their names. These tickets were kept for reference and practice.

Discussions followed as to things to be made, and the best method of making these. At this stage the whole class joined in the discussions about the work of each group.

Homes

The children who were making homes grouped themselves into twos and threes, each "family" being responsible for making its own home. The children brought odd pieces of wood, and wooden boxes such as butter boxes, tea chests, orange boxes. Larger boxes required the assistance of father or mother or big brother to get to school.

The boxes were painted or covered with wallpaper to make them more attractive. One little boy who had seen the head mistress using some distemper on a wall asked her if he could have some of her "real man's paint" with which to paint his house.

When the houses were dry, the children, with the help of the teacher, shared out the available dolls and doll furniture. She suggested that those who required other equipment for their houses would find materials such as cardboard, wood, tools, clay, odds and ends of materials, etc., in the store cupboard. The children made rough wooden beds for their real, rag or newspaper dolls; tables, chairs, and sofas of wood; curtains, dolls' clothes and bedding from scraps of material; cups and saucers, teapots, jugs and plates from clay. All these were painted to make the home look gay.

The Children's Parents

Often the parents who helped the children to bring things to school stayed for part of the afternoon to watch the children at work. When the weather was fine the children worked out of doors making clay cups and saucers or clay goods for the shops.

Windows

A suggestion from the teacher that an imitation window could be made in the houses by pasting a picture with a view on it on one of the walls was greeted with delight. "Windows" were made with a variety of views, and this led to the children naming their houses "Sea View," "Rose Cottage," "Garden Villa." The children were shown how to write the names they chose for their houses. These names were printed on cards and fastened to the front of the house.

Shops

Meanwhile, shops were being made and stocked. Kindergarten tables made excellent counters, while strips of plywood on brackets, and wooden boxes nailed together, were fixed up for shelves. The "greengrocer" group made fruit and vegetables from clay and papier mâché and coloured them with poster paint. Goods for the "dairy" were equally simple. Plasticine served as butter, eggs and cheese were made from clay and painted when dry. Water mixed

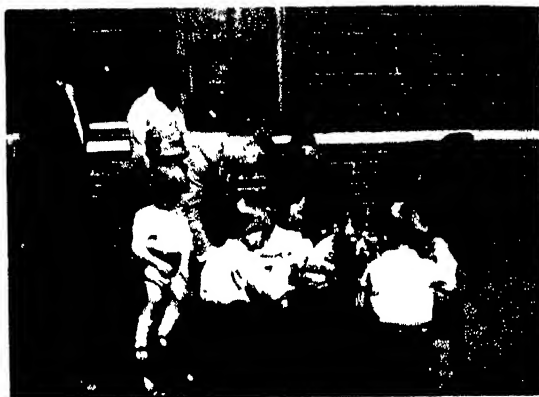


FIG. 4

The children's interest in their projects often carries over into the home. This picture shows a group of interested parents watching the children at work

with a little white paint made an excellent substitute for milk, and many children brought real milk bottles borrowed from the dairy.

The "grocery" was stocked mainly with empty tins, boxes, packets and bottles brought from home. The children asked if they could have some sand to weigh for sugar, and the teacher suggested that they might also like some dried beans. The children requested the use of real scales, weights and measures, and so a set was provided for each shop.

As soon as the goods were ready and the shelves fixed, the shopkeeper arranged everything to his satisfaction, and buying began almost immediately. The housewives used coloured counters for money, each counter having the value of one penny. If an article cost 6d. the purchaser counted out six pence for payment.

The pricing of the goods was haphazard, and varied from time to time. The housewives were continually running to and from the shops, buy-

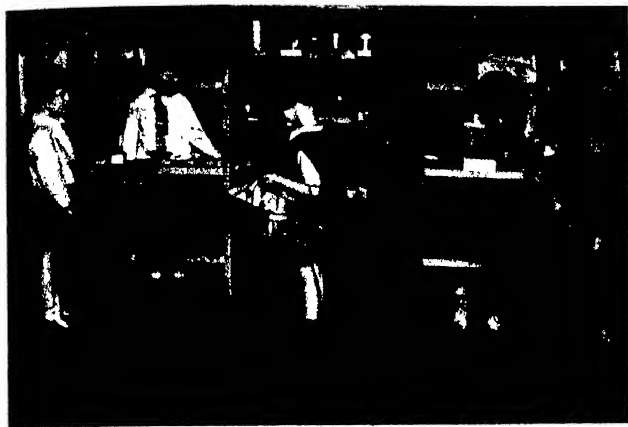


FIG. 5

Playing at shops is interesting to most little children. The above picture shows a simple shop being used by five-year-olds

The dairy often ran short of eggs and customers complained about being kept waiting. They said that they were busy and had dinner to cook before the fathers came home. The business of weighing out $\frac{1}{4}$ lb. packets of tea took so long that similar complaints were made to the grocer. This gave the grocer the idea of asking one of his assistants to weigh up packets of tea and sugar in advance. The dairyman asked his assistants to make more eggs and cheese, and to weigh up butter in $\frac{1}{2}$ lb. and $\frac{1}{4}$ lb. pats so that customers need not be kept waiting. The greengrocer required more fruit and vegetables, so some of the "fathers" offered to assist by making extra supplies for the shops and having a separate Wholesale Shop to which shopkeepers could send when they needed further supplies.

ing one article at a time and then returning for others.

The "fathers" from the homes went out to work and returned for "dinner." Most of the fathers employed themselves with wood and tools making such things as tables, beds, etc., for the home.

Increasing Interest in Shops

Interest in the shops was gradually increasing. The children began to get more particular about their shopping. The housewives did not like having sand for sugar, tea and flour, and asked for more variety in the goods they bought from the grocer. The teacher provided the grocer with dried peas, lentils, rice, acorns, pebbles, gravel. These were put into tins and the tins labelled peas, lentils, rice, beans, sago, sugar, tea, etc.

Discussions

Controversy arose about the prices which were charged to different shoppers for the same goods. Difficulties also arose with regard to the



FIG. 6

The five-year-olds made a separate "wholesale department" to their shop

amount to be charged when the shoppers bought two or three things together at the same time.

Class discussions centred around these two points, and from these developed the idea that prices should be fixed and that price tickets and

lists should be made. These were made by the children. One child suggested that they should have a pay desk in their shops just as there were in real shops, and the teacher furthered this suggestion with the idea that each shopper should be given two tickets for each article he bought, one ticket showing the name of the article and the other showing the price. These tickets were to be presented to the cashier in the pay desk when the children paid their money.

Throughout the term the children's interest in the shops continued and increased, and the following term they decided to do away with most of the houses and to have instead one or two better shops with real money.

Outcomes of this Project

HANDWORK

Woodwork—making houses, shelves, dolls' beds, tables, chairs, sofas, aeroplanes, carts, etc.

Clay-modelling—goods for dairy and greengrocer's shops, bowls, dishes, cups, saucers, teapots, jugs.

Needlework—curtains for houses, dolls' clothes, mats, sheets, blankets, table cloths, tea cloths.

Painting—painting and decorating houses, shops, clay fruit and vegetables, designing and painting curtains and window "scenes" for houses, posters and advertisements for shops.

LANGUAGE

Free and organized group and class discussions.

Enlarging vocabulary to include such terms as: twice, dozen, wholesale, 1 lb., $\frac{1}{2}$ lb., $\frac{1}{4}$ lb., $\frac{3}{4}$ lb., pint, quart, etc.

Learning correct pronunciation of names of fruit, vegetables, goods, etc.

Learning to ask for things politely, to say "please," "thank you," to shopkeeper and customer.

READING AND WRITING

Writing names on lists, names of houses on labels, price tickets, price lists, shop labels, notices,

advertisements. Writing figures on price tickets, etc.

Interest in reading beginning. Reading names of houses and goods. Recognizing labels and tickets.

NUMBER

Counting numbers in each group, articles made, houses made, articles bought. Learning figures.



FIG. 7

Woolworth's Stores. A project worked out by children of 6-7 years of age

By kind permission of Miss Marion Richardson

Recognizing figures in connection with shop and houses. Recognizing such signs as 1d, $\frac{1}{2}$ d, $\frac{1}{4}$ d, 1 lb, $\frac{1}{2}$ lb, etc., 1 pint, etc.

Money introduced, use of it learned. Simple money sums and bills. Giving change.

SOCIAL TRAINING

Learning to play and work in groups. Thinking of group activity rather than individual activity.

Learning to share tools and take turns at being shopkeeper, cashier, errand boy, waiting turn in shop.

Habit training in houses. Washing hands before preparing the table for meals. Cleanliness and tidiness.

DRAMATIZATION

Whole activity involved dramatic and imitative play, children being mothers, fathers, shopkeepers, milkmen, errand boys, etc.

Discussion

The teacher asked the class what they intended doing with the fair when it was made. "Play with it," came the reply, "and invite other classes to play with it too." She pointed out that when they had made a Zoo the previous term it could not be used satisfactorily for long because so many of the models were too small and fragile. She suggested that they should discuss the project with their brothers and sisters and parents and come the next day with ideas as to how the models were to be made, what materials were to be used, and how these were to be obtained.

The following morning the second Fair News Sheet was posted up in the room. It read as shown in table at foot of page 1049

Each child wrote his name in one of the columns on this notice. The teacher foresaw that more children would be needed to help in the making of the waxworks and the roundabout, but she made no comments, because she thought it better for the children to make their own adjustments as the need arose

All the class took part in the discussion raised by the teacher producing the third Fair News Sheet.

Things we must decide next

1. What materials shall we need?
2. Where shall we get them from?

Although a good deal of time was taken up in discussing these two vital problems, the teacher felt that it was time well spent because the children were discussing not only the relative values of the materials for the different purposes for which they were suggested, but they were also actually deciding to a large extent how each stall and sideshow should be made, its size, and its use when finished.

Helpful Suggestions from the Children

Through this discussion the children got many ideas from the others in the class. For instance, when the peepshow was being talked about, one child who was not actually in the peepshow group suggested that empty matchboxes would

be needed. When another child asked what these could be used for he was told "To make furniture for the Giant's castle in 'Jack the Giant-killer'." This gave an entirely new line of thought to the peepshow group, for so far none of them had thought of making scenes from fairy tales.

Each stall and sideshow was discussed in turn from the point of view of the two questions. When the fourth Fair News Sheet appeared it contained a summary of the children's suggestions.

The days which followed were full of interest and excitement. The children arrived at school each day laden with cardboard boxes, pieces of cardboard, corks, cotton reels, matchboxes, scraps of material, and other odds and ends.

Ideas were stimulated by the bringing of unusual pieces of material. For instance, one mother sent several yards of tarnished gold tinsel, and this gave rise to the idea that the child in charge of the peepshow should have a magician's robe.

Co-operation of Parents

Parents came to school to help the children carry boxes and cardboard, and stayed to offer helpful suggestions for the making of different things

The Classroom Becomes a Workshop

The classroom took on the appearance of a workshop, for all unnecessary things had to be cleared away in order to make room for the new materials and the various activities.

Throughout the school these children had had many experiences with materials and tools, so that they were now quite well able to tackle their problems on their own, and needed little more from the teacher than general supervision and an occasional word of advice.

The children worked in groups on the different models or stalls they had chosen. The children working on the cake and sweet stalls decided that it was too soon to make cakes and sweets as they would be stale before the time came for the opening of the fair, and so they elected to make a proper stall instead of borrowing one from another class.

	What we shall need	Where we can get it
Hoop-la	Sheet of ply wood or strong cardboard Pegs or pieces of rounded wood String, raffia, cane Glue, nails, hammer Paints	Woodwork centre or school store Home and woodwork centre. School store School store Classroom
Roundabout	Sheets of strawboard Sheets of cardboard Animal shapes Stick Small bricks Scissors, glue, tape measure	School store School store Classroom Home or woodwork centre School Classroom
Peepshow	Large cardboard boxes Pieces of cardboard Coloured paper Empty matchboxes Twigs Paint, scissors, paste	Drapers' shops Shoe store Home, shops and school Classroom Father Garden Classroom
Roll ball	Sheet plywood Strong cardboard boxes Balls Wooden battens Nails, hammers, scissors, paste, enamel	Woodwork centre or school Shops Old tennis balls Borrowed from games cupboard Home School store Woodwork centre School
Waxworks	Screen house Plasticine Tissue paper Scraps of material, fur, wool, etc Scissors, needles, cottons, paint, glue	Borrow from Baby Room School store Home or school Mother and teachers Classroom
Sweet stall Cake stall	Recipes Cooking materials, flour, sugar, etc Mixing bowls, wooden spoons, knife, egg whisk, cake tins, measures, scales and weights, lemon squeezer, greaseproof paper Stall or tables	Own recipe books made in Room G Mother Shops and home School and home Borrow from Room D
Lemonade stall	Lemons, sugar Hot water Large jugs, tumblers, bowls, ladles Stall or tables	Shops and home School Home and school Borrow from Room G

Below is given a brief description as to how each stall and sideshow was made.

HOOP-LA

Large sheets of plywood with wooden pegs 4 in high glued on in various places. Sheet of wood enamelled yellow, pegs enamelled black Figures

painted in black by each peg (1-10) Rings made from pieces of cane bound with raffia.

ROUNDABOUT

Several large circles marked on strawboard by means of a pencil tied on to the end of a piece of string the required radius of circles. The end of

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Christmas Party Project

Number in class 46. Ages 7 years.

Towards the end of November the children began talking about Christmas and the annual Christmas Party which was held at the school. Some of the children thought it would be nice if, in addition to the big party, a special party was given for the Babies' Class. They asked the teacher if they could invite the babies to a party in their classroom a few days before the fancy dress party.

The teacher readily agreed and asked the children to write down their ideas as to what form the party should take and any other suggestions they liked to make. The written suggestions were placed in a box. Later these were taken out and each child was asked to read his own paper and to invite the opinions of the rest of the class on his ideas.

Some of the papers caused considerable amusement, while others were criticized as containing ideas which could not be carried out.

The children took some time to decide how they would arrange the party. Eventually, the list of suggestions to which all the children agreed was written up on the blackboard by the teacher and copied by the children into their diaries as follows—

OUR PLANS FOR A CHRISTMAS PARTY

Our class will give a special party to the babies
We shall have it on Tuesday, December 21st

The party will be held in our room

Cakes, sweets, and lemonade will be given as refreshment.

We will have a Christmas tree and decorate it with shining things.

We will make paper hats for the babies

We will make toys to give to the babies

The biggest boy in our class will dress up as Father Christmas and give out the toys to the babies.

Games will be chosen which the babies will like

We shall sing a few songs about Christmas

Christmas stories will be told by our teacher

Making Toys for the Babies

The children were asked what they thought they should make first, and they decided to make the toys as these would take longer than anything else. They sent a note to the teacher of the babies asking how many boys and how many girls there were in her class. They received

a reply stating that there were 20 boys and 18 girls. Thirty-eight of the children then decided to make a toy for either a boy or a girl, and the rest said that they would begin at once to make paper hats. The latter group measured some of the babies' heads in order to get some idea of the size to make the hats.

Tissue paper in bright colours was procured for the hats and the children collected all sorts of waste material for use in making toys. They had plenty of ideas as to how empty match-boxes, cotton reels, corks, clothes pegs, etc., could be made into little carts, dolls' furniture, dolls, jumping jacks, although suggestions were often needed regarding the execution of these ideas, and sometimes as regards the suitability of the toys suggested. The toys were painted in very bright colours to please the little ones more.

Other Activities

Paper chains and Japanese lanterns were made for the room and the teacher asked to help in putting these up.

The boys measured one another against the measuring rod in order to find the tallest boy in the class. Two children worked together to make his clothes. Two more children were chosen to decorate the Christmas tree with tinsel and decorations brought from home for that purpose.

Invitation to the Babies

On the Friday previous to the party an invitation in the form of a large picture poster was sent to the babies. This poster was made by a group of children, and represented a Christmas tree filled with toys and Father Christmas standing near. The picture was made from shapes cut from coloured paper. Under the picture were the words,

"Come to my party on Tuesday."

Refreshments

Cakes, sweets and lemonade were made on the day before the party. On the Tuesday morning kindergarten tables and chairs were arranged along the side of the room in preparation for "refreshment time."

The Party

When the time for the party came each older child took charge of one of the babies. They had previously arranged which baby they were to have by writing the names of all the babies on separate slips of paper and drawing lots. The boy who was to be Father Christmas was not included in this. Those children without babies to look after were to be waiters and waitresses, and a few of them were to be in a musical dramatization of the arrival of Father Christmas.

The decorated Christmas tree stood in one corner of the room.

As the babies assembled, a group of the older children beat drums, while the rest of the class chanted,

*Now Christmas is come
Let us beat up the drum.*

Christmas Cheer—"The London Treasury of Nursery Rhymes."

Songs and recitations by the older children were interspersed with games for everyone. The songs and recitations had been chosen and practised by the children. Below is a list of these—

SONGS

*I saw three ships come sailing by
On Christmas Day, on Christmas Day.*

Tune traditional. Words from "The London Treasury of Nursery Rhymes."

A little child on the earth has been born.
"Songs of Praise."

The twelve days of Christmas.
"Songtime."

RECITATIONS

As Joseph was a-walking.

"The London Treasury of Nursery Rhymes."

Christmas is coming.

"The London Treasury of Nursery Rhymes."

When the time came for refreshments the babies were seated on the little chairs, and everyone was served by the waiters and waitresses with cakes and lemonade. Before they began eating and drinking the older children

recited the following early seventeenth-century carol as a Grace. They chose it "because," they said, "it talks about Christmas, and although the babies won't understand it all they will like the last two lines in each verse."

A CHRISTMAS WISH

*God bless the master of this house,
The mistress also,
And all the children
That round the table go.*

*And all your kin and kinsfolk,
That dwell both far and near;
I wish you a merry Christmas
And a happy New Year.*

Musical Dramatization

After the refreshments everyone trooped out into the hall, where a small group of the older children gave a musical dramatization of the arrival of Father Christmas. The music used by the teacher for this was "Santa Claus," from "Kinderalbum," by Arnold Krug. In this dramatization Father Christmas appeared and placed toys at the foot of two beds in which were a boy and girl asleep.

When Father Christmas had gone, and the music had ceased, Father Christmas reappeared to present the toys made by the older children to the babies. At the end of this ceremony the babies played with their toys for a while, after which they gathered together while the teacher told them two stories—

The Golden Cobwebs. Bryant.

Mrs. Santa Claus. Bailey and Lewis, "For the Children's Hour."

Some Outcomes of this Project

HANDWORK AND ART

Making of toys.

Decorations, design in the decoration of the room

Making Father Christmas dress

Christmas cards for inviting teachers to party.
Poster for babies. Cooking.

LANGUAGE

Discussions.

Words of songs and recitations.

Polite forms of speech. Pronouncing babies' names properly.

READING AND WRITING

Writing and reading suggestions for the party
 Letters, invitations, lists of names, etc.
 Programme planned and recorded.
 Writing names of babies on toys
 Learning words of songs and rhymes from
 anthologies of verse.

NUMBER

Measuring babies' heads for size of paper hats.
 Boys measuring their heights to choose Father
 Christmas.
 Planning number of toys, sweets, cakes, glasses
 of lemonade to be made.
 Weighing and measuring ingredients for cakes,
 sweets, lemonade.

MUSIC

Learning the three songs chosen.
 Listening to "Santa Claus" from "Kinder-
 album" (Krug) and interpreting the music

LITERATURE

Selecting suitable story from amongst those told
 by teacher. Discussing grounds of choice, e.g.
 interesting to babies because of episodes in story,
 humour, repetition, length.
 Choosing suitable poems from anthologies
 Discussing the suitability of these

GENERAL SOCIAL DEVELOPMENT

Thought for others Planning party solely from
 the point of view of guests' enjoyment Courtesy
 to visitors Placing the needs and desires of others
 first.

one in which the children had made models
 representing different forms of transport. They
 had constructed steamers, trawlers, cargo boats,
 battleships, different types of railway engines,
 goods and passenger trains, pullman cars, cattle
 trucks; aeroplanes, including monoplanes, bi-
 planes, autogyros, sea-planes, etc. Docks, aero-
 dromes, railway stations and goods yards had
 been made Their research work included the
 collecting of newspaper and magazine pictures,
 collecting information about these pictures, and
 making class and individual reference books.
 Many of the children also drew and painted
 pictures of shipping scenes, aircraft, etc.

When a group was chatting about a picture
 which had just been completed, one boy said,
 "Why not paint a lot of pictures and make them
 into a film about our work and then we can tell
 the others in the school all about ships, aero-
 planes and trains?" The group thought this a
 splendid idea and talked it over with the
 teacher, who asked if they wanted any help from
 the rest of the class. The children thought that
 if the whole class helped it would be possible to
 have not only a film, but a cinema with atten-
 dants, music, curtains and tickets. They asked
 the teacher to arrange a class discussion.

The class discussion followed in due course.

The following points
 were discussed

What shall we call our
 film?

How shall we make it?

Shall we paint pictures
 or cut them from paper?

Shall we have a silent
 film or a talkie?

What shall we use for
 the screen?

How can we show the
 film?

Shall we have seats
 and tickets?

Shall we have a band?

Suggestions came very
 quickly. The majority

of children wanted a talkie, and they arranged
 to entitle the film,

"How would you like to travel?"

The children said they would not only show

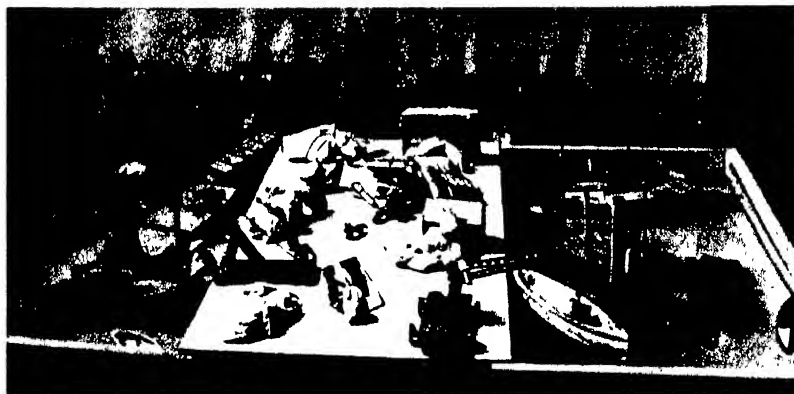


FIG. 9

*Docks and landing stage made by a group of six-year-olds in connection
 with a transport project*

Cinema Project

Number in class 48. Ages 7-7½ years.

This project was the outcome of a previous

The Party

When the time for the party came each older child took charge of one of the babies. They had previously arranged which baby they were to have by writing the names of all the babies on separate slips of paper and drawing lots. The boy who was to be Father Christmas was not included in this. Those children without babies to look after were to be waiters and waitresses, and a few of them were to be in a musical dramatization of the arrival of Father Christmas.

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HANDWORK AND ART

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Decorations, design in the decoration of the room

Making Father Christmas dress

Christmas cards for inviting teachers to party.
Poster for babies. Cooking.

LANGUAGE

Discussions.

Words of songs and recitations.

Polite forms of speech. Pronouncing babies' names properly.

Types of sea-craft, aeroplanes, trains, motors, bicycles.

Learning something of comparative speed and cost of travelling—quickest and slowest methods



FIG. 10

A group of boys making aeroplanes. The maps on the walls show the air routes to different countries. These had been sent to the boys in response to letters they had written to the various airways companies

of travelling, cheapest and dearest methods of travelling

Teacher supplied historical and geographical facts in shape of stories when such facts necessary to understanding of news.

Harvest Festival

This project was one in which the whole school participated although the separate classes were free to work out their own ideas. The suggestion for this project came from the head-mistress of the school just before harvest time. She asked the classes at prayer time one morning to discuss the possibility of a general harvest festival and to give in their ideas to her.

The idea was adopted with enthusiasm by the whole school and suggestions flowed into the head mistress's room. In fact, there were so many and such varied suggestions that she asked the top class to elect a small committee to discuss the suggestions with her and help her to make a selection of the most suitable ones. Her room now became a real office, with important-looking children bustling in and out for committee meetings. From time to time they issued reports and notices to the school saying,

"Please reserve all further suggestions until to-morrow." "Here is a first list of the suggestions adopted by the Selection Committee."

Suggestions Accepted

A final list of adopted suggestions was issued to the whole school, as follows—

We are going to have a school Harvest Festival.

These are the things we are going to do—

1. Bring fruit, vegetables, groceries, eggs for the local hospital.

2. Have a Harvest Thanksgiving service for the whole school.

3. Invite our mothers and fathers to the service

4. Sing special harvest songs and hymns.

5. Give a harvest play.

6. Make a "film" showing pictures of many different harvests, e.g. fruit, root crops, fish, tea, grapes, oranges, lemons, sugar, tea, cocoa, etc.

7. Make harvest pictures and posters

8. Paint pictures showing how the harvest of fields, woods and hedgerows is used by animals and birds, e.g. squirrel, field mouse, sparrow, starling.

9. Make harvest hymn books, so that the parents can have a hymn book from which to sing.

10. An invitation to be sent by each child to his parents. Invitations to be written by top classes for those children who cannot write.

11. Harvest picture books to be made by all those children who want to make them.

The classes who had suggested the making of plays and films were asked to make themselves responsible for these. It was announced that selections would be made from the posters and pictures made in the school for a general display in the hall

There were many practices of the harvest hymns and songs selected. A Friday was chosen for the Harvest Thanksgiving Service, and the week prior to this day was set aside to be Harvest Week throughout the school. Each class had an individual collection of goods and these were later exhibited in the hall together

The whole school was asked to co-operate with the top class in making a "film" by bringing as

many different harvest pictures as possible. Letters were written by the top class to the Empire Marketing Board asking for suitable posters.

The second class composed a harvest play, making their own properties and costumes.

The words of the hymns and songs were printed by the head mistress and two assistants from the top class on the school printing press. Three classes helped in making the books by binding the sheets together and decorating the covers.

One class was made responsible for seeing that the children in the school who could not write their own invitations were supplied with these to take home to their parents.

There were many discussions in the various rooms of actual harvest scenes witnessed by the children or teacher and of pictures and photographs brought to school.

Many pictures and posters were made by the children illustrating harvest scenes, asking for goods for the hospital, illustrating the harvest of birds and animals.

A large part of the organization of the Harvest Service was left to a group of boys and girls in the top class under the supervision of a teacher. Chairs were arranged for a certain number of parents and these were reserved for mothers with babies. Arrangements were made for conducting the parents to their seats or standing positions and for the distribution of hymn books.

Some of the General Outcomes of this Project to the School as a Whole

SOCIAL DEVELOPMENT

This aspect the most important in this project. Valuable experience for children and staff in regarding the school as a unity. Children feeling themselves part of a bigger whole than their individual classes. All working towards a common end, and that one largely altruistic.

ART AND HANDWORK

Arranging gifts brought for the hospital. Making posters, pictures, films, properties for play, etc.

Making hymn books, decorating covers.

READING AND WRITING

Lower classes—Labelling fruit, vegetables, etc. Making newspapers and reading sheets in connection with harvest activities.

Making individual diaries in pictures, with some writing.

Upper classes—Writing and learning harvest play. Recording events in diary. Writing words of hymns, invitations to parents, etc.

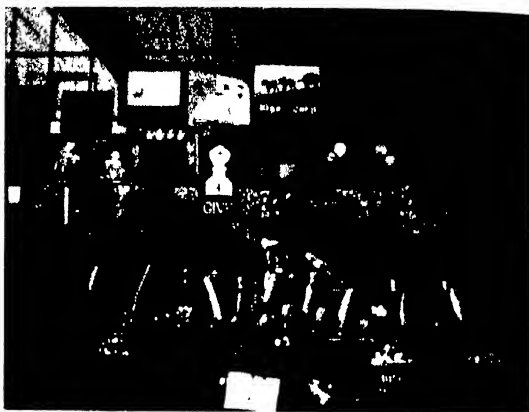


FIG. II

A school project at harvest time

Words on posters, notices. Writing to hospital asking for goods to be collected.

NUMBER

Counting and weighing goods brought. Entering daily quantities, etc., in notebooks.

Calculating number of notes to be written by top classes for lower classes, number of hymn books, chairs.

MUSIC

Learning songs and hymns.

LANGUAGE

Group and class discussions

Learning names of fruits, vegetables, groceries, etc. Names of different kinds of grain.

Names of various animals, e.g. dormouse, squirrel

Names of machines used by farmer (pictures shown)

Preparation and presentation of play.

Words of hymns and songs

LITERATURE

Harvest stories, scripture and ordinary

Geography stories showing typical harvests of other countries.

MODEL MAKING FOR CO-OPERATIVE WORK

THE value of co-operative work for children of six years old and upwards has been mentioned many times in earlier pages. This section is, therefore, confined to practical suggestions and illustrations only.

Dock Models

Suggestions for the building of a model dock are given in the *Geography* section, page 742, and many of the models made for the railway, page 1061, may also be used in conjunction with the dock.

A Crane (Fig. 12). The foundation for the crane may be made either from wooden building blocks or two shallow cardboard boxes (*a* and *b*). Another box with bottom cut out stands upon one side to form support for winding gear (*c*).

A round rod (or piece of macaroni) is passed through holes on each side of this support, and cardboard discs (*d*) are added. A small stick glued into the right-hand disc makes a handle. The long arm (*e*) for pulley is a strip of thin wood, or extra stout cardboard, fixed at an angle of about 60°. Support (*f*) is glued into

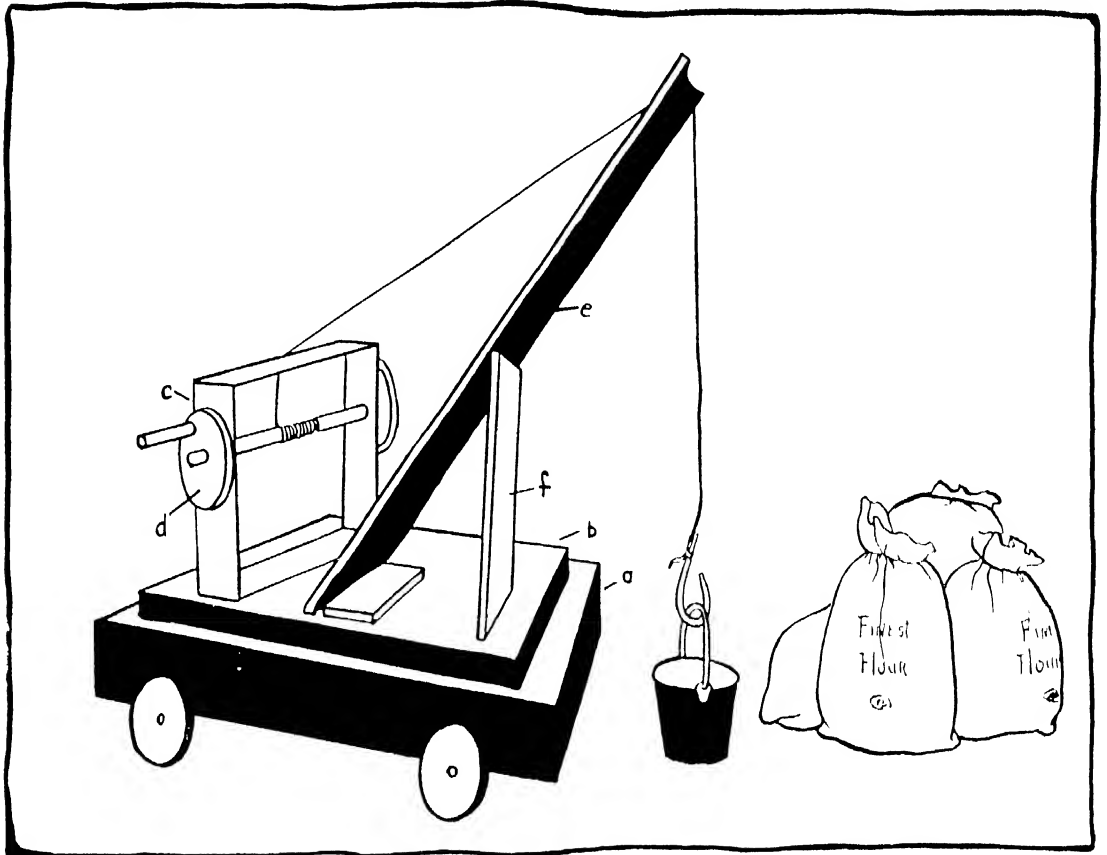


FIG. 12

How to Make a Crane

position. Four button moulds are used for wheels.

A Capstan (Fig. 13 *d*) is made from a button mould glued to the top of a cotton reel. It should be painted black to look like iron.

A Truck (Fig. 13 *b*). Four pieces of cardboard (Fig. 13 *c*), two long and two short, are glued together to form walls of truck, on to an oblong

A Railway Station (Fig. 14)

The platform is made of two oblong boxes (*a* and *b*). The sloping ends (*c*) are cut from a third oblong box (see dotted lines Fig. 14). Corrugated paper is fastened down upon sloping ends. Lamp-posts like that in market village (Fig. 15) stand at each end of platform.

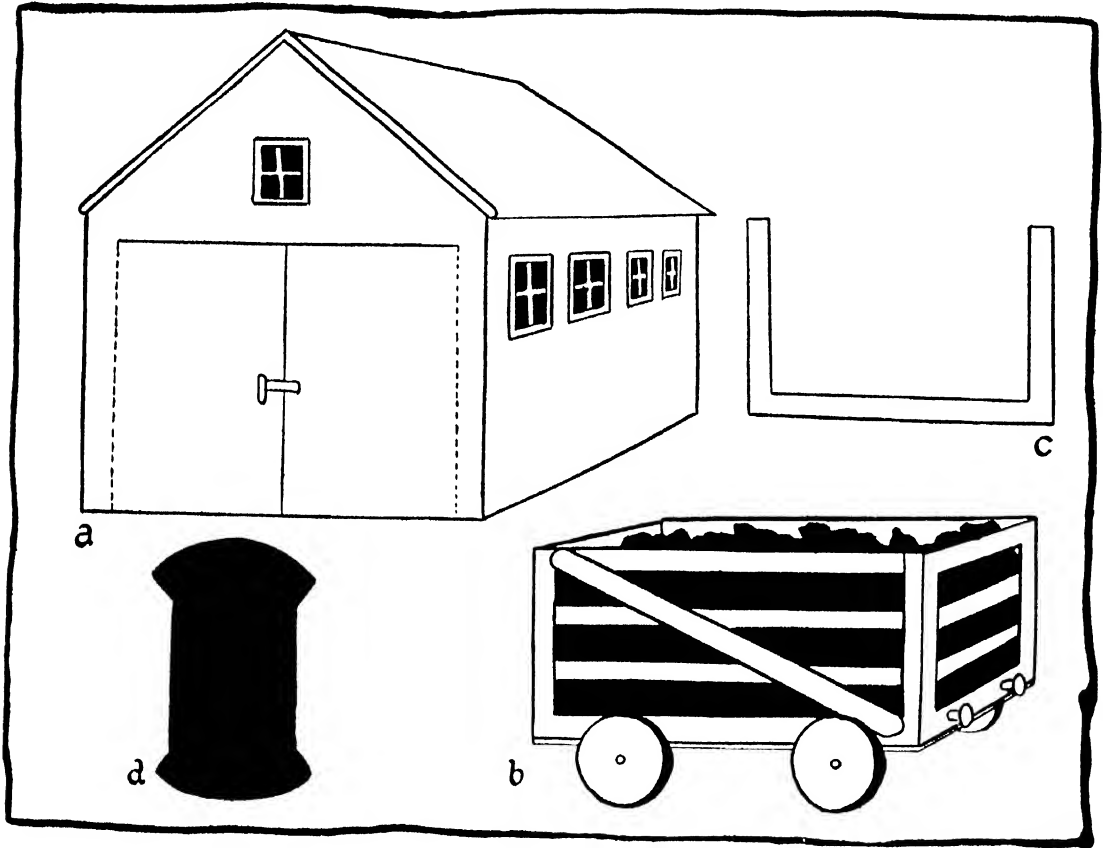


FIG. 13

Warehouse, Truck, and Capstan

foundation. Bars are glued on to the insides. The buffers are pieces of rod with small button moulds added. Wheels are added like those of model train.

A Warehouse (Fig. 13 *a*). The warehouse is made from boxes, like the model shop in the market village. Very large doors are cut at one end, and a bolt made from two strips of wood. Small windows are cut out from sides.

The Waiting Room is constructed like the shop (see Fig. 16). A large opening is cut in front and a form, running round walls inside, added. Bus tickets and cigarette cards may be pasted on to walls for posters, and a clock added.

Station Seats are a variation of the model given in paper folding section, page 993.

Churns are made from corks covered with silver paper.

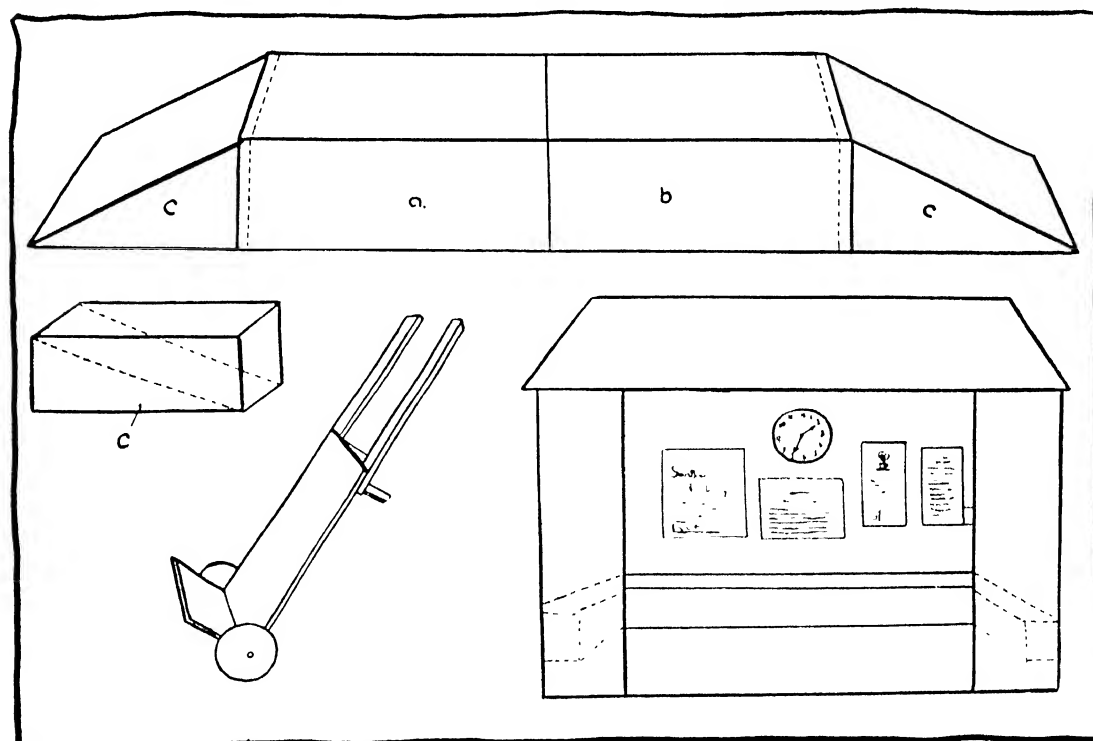
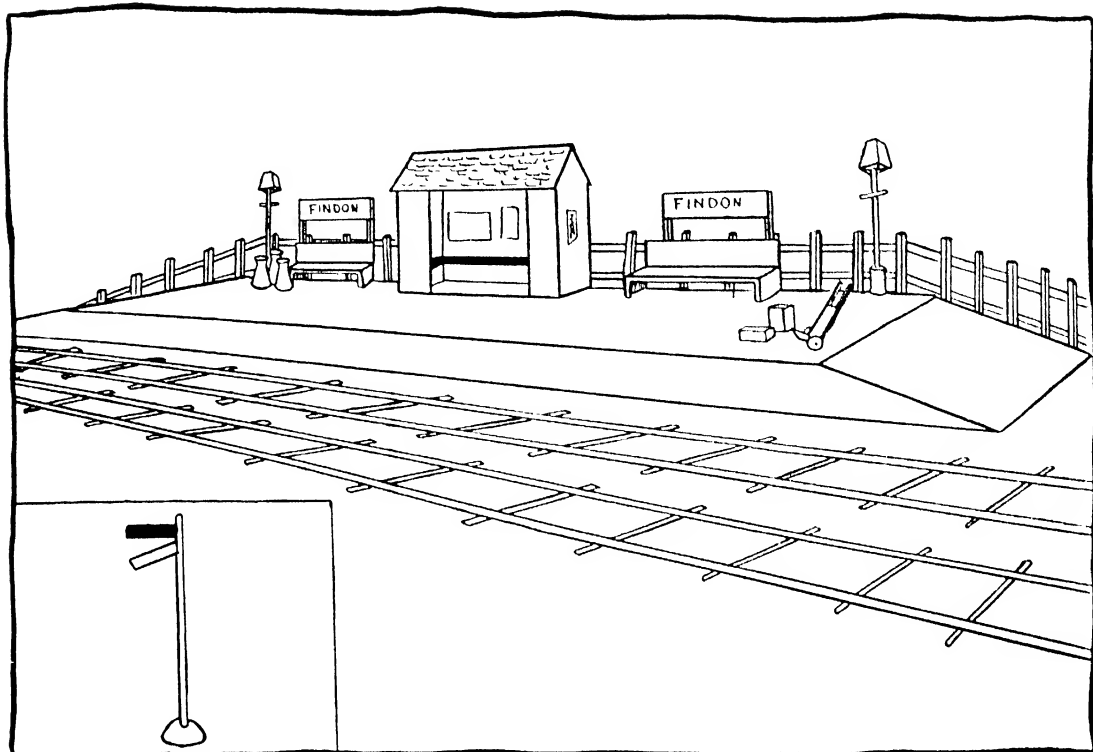


FIG. 14
Models for the Railway Station

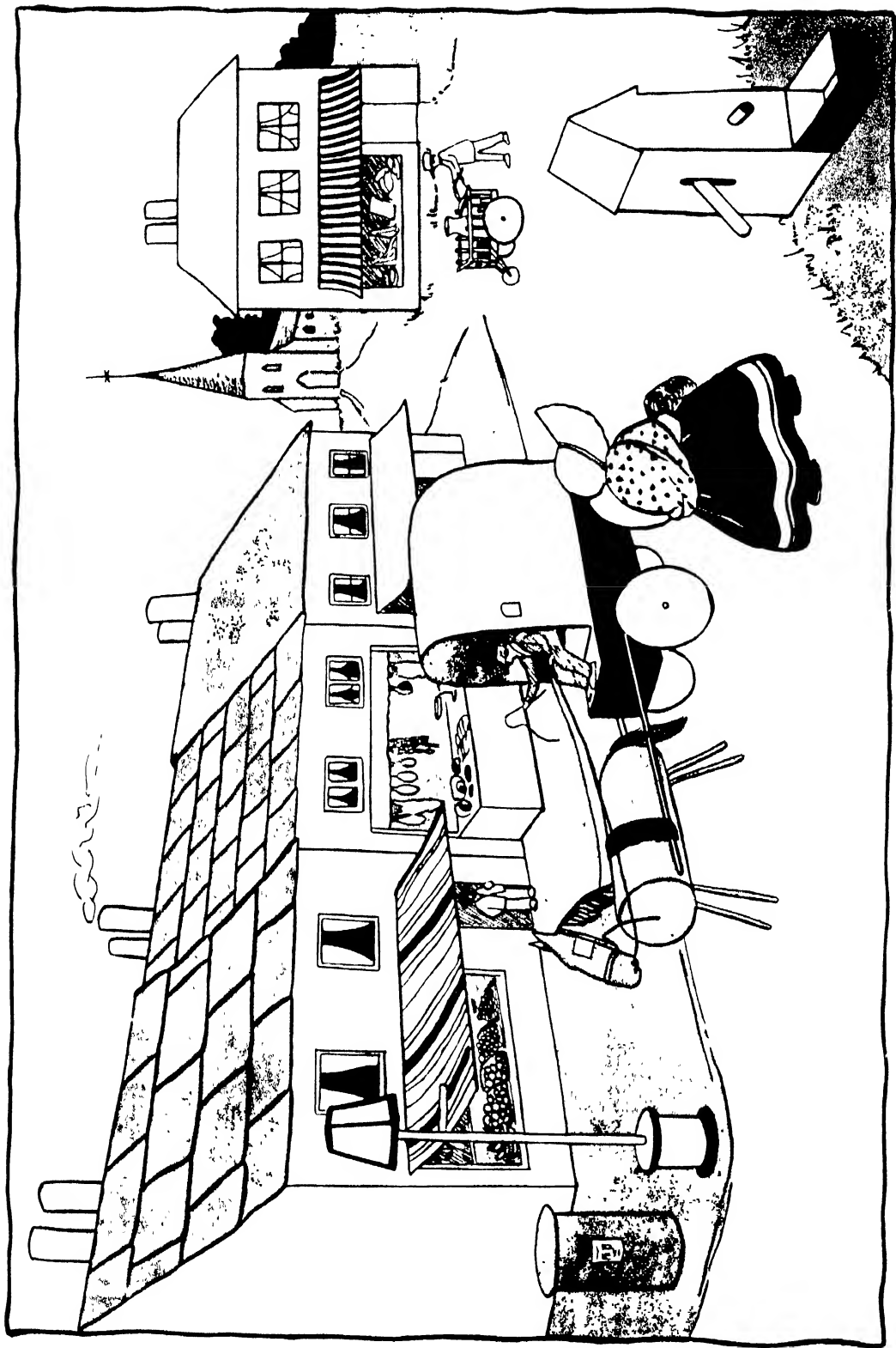


FIG. 15
The Market Village

Signals are made from strips of paper, fastened on to kindergarten stick, the end of which stands in clay support.

A *Porter's Trolley* is made from two sides of small box. Handles and supports are short sticks. Wheels are fastened to an axle which must be glued on to crease of box. Small boxes

A *Shop* (Fig. 16 a). Two oblong boxes are needed for this. One box forms the shop itself; windows and doors are either cut out or drawn in. The second box has one wall removed and corner pieces cut off from the two ends (see Fig. 16 b). This forms the roof (c). Chimneys are made from a strip of paper (d) rolled into a

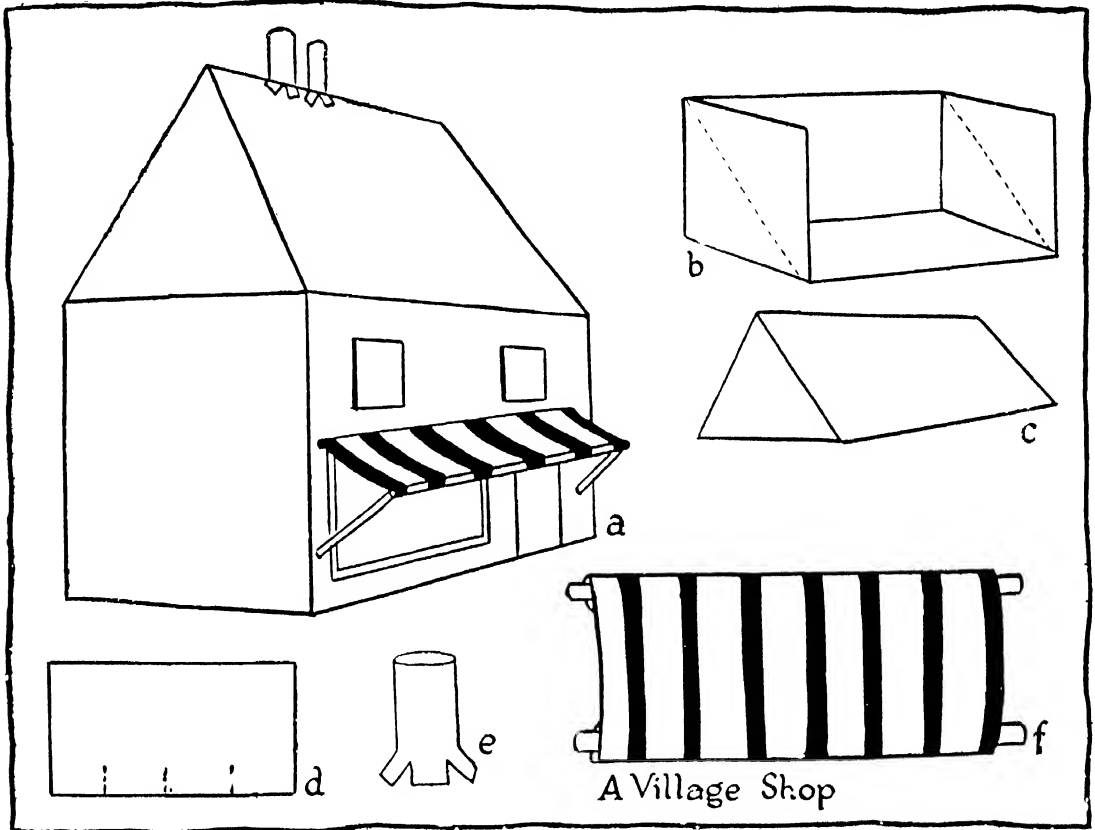


FIG. 16

and trucks and baskets may be placed on the platform.

The fence at the back is made from match sticks. Bushes and shrubs may be added.

Railway Lines are long kindergarten sticks, placed parallel to one another, with match sticks glued on at equal intervals for sleepers.

A Market Village

The models for the market village (Fig. 15) are nearly all made from boxes.

circle and fixed to the roof by tabs cut round the base (c).

A blind (Fig. 16 f) is made from a small piece of striped material which is glued on to two rollers (macaroni), and supported by sticks glued into position between roller and wall. If the shop window is cut out, it may be fitted up inside.

Many variations of this model may be made, e.g. the butcher's shop has stalls outside. Brick and tile paper pasted on to walls and roof gives a realistic finish.

The Village Church (Fig. 17). The church is constructed in the same way as the shop, and the tower is made from a small postal tube or cylindrical box, on top of which is pasted a paper cone. Fig. 17 *b* gives a pattern for this; the small cuts are made so that it shall overlap the postal tube evenly. A skewer with sharpened

The hood is an oblong strip of white paper, with a peephole cut from the side. Circles of cardboard make the wheels. The horse has a cardboard head which is inserted into the cut end of a large cork (Fig. 18 *a*), and match stick legs. A pattern for horse's head may be given out or cut from a picture book and pasted on to

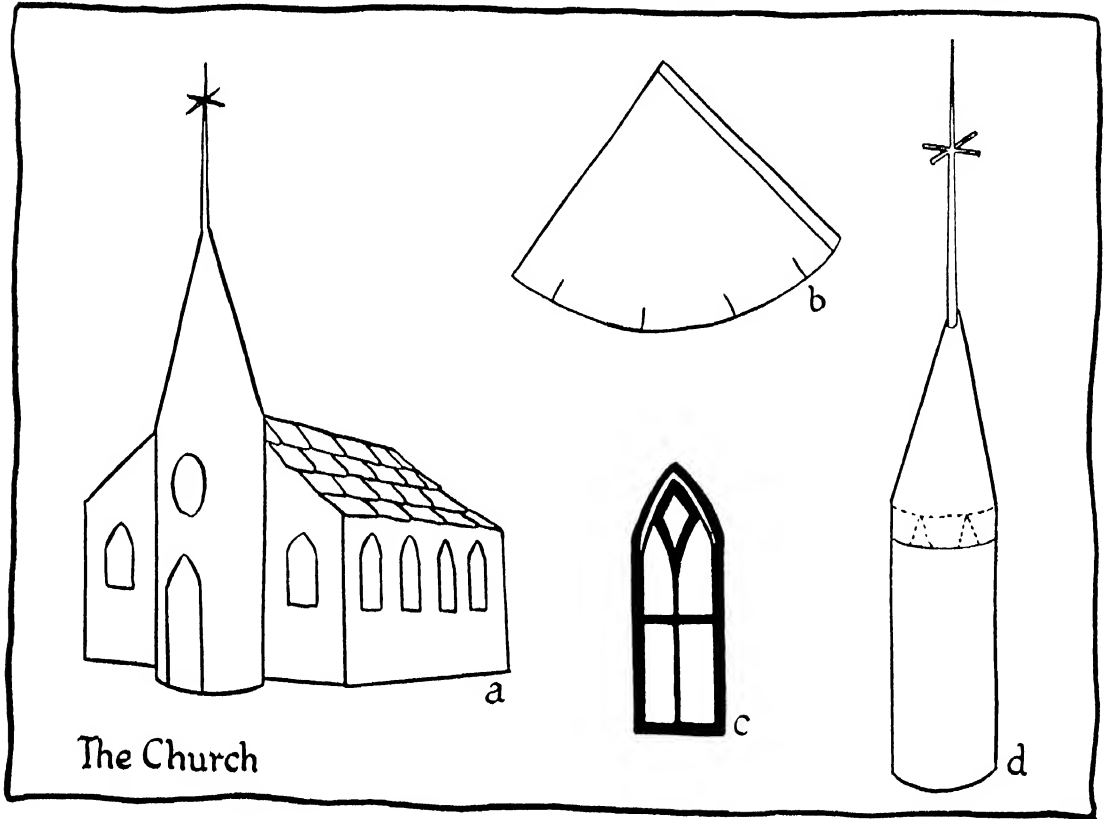


FIG. 17

The Village Church

point is inserted into a hole at the top of the cone and glued into position, and weather vane added (Fig. 17 *d*). Windows and doors may be cut from advertisement booklets for stained glass windows and pasted on.

Horse and Cart

A small box makes the driver's seat and is glued on to a larger oblong box for cart. Sticks are glued on to sides for shafts, which are slipped into looped ends of piece of tape for harness (Fig. 18 *a*).

cardboard. Wool or raffia is glued into position for mane and tail.

A Milk Cart. Sticks of even length are glued into a shallow oblong box (see Fig. 16 *c*). Next, a framework is made from four flat strips of card. Holes are punched into this to receive the top ends of sticks. This framework holds bars in position, and also forms a little shelf.

The diagram also shows how the front wheel is fixed. The shafts are of stiff cardboard, and a match forms the axle. A handle is made from

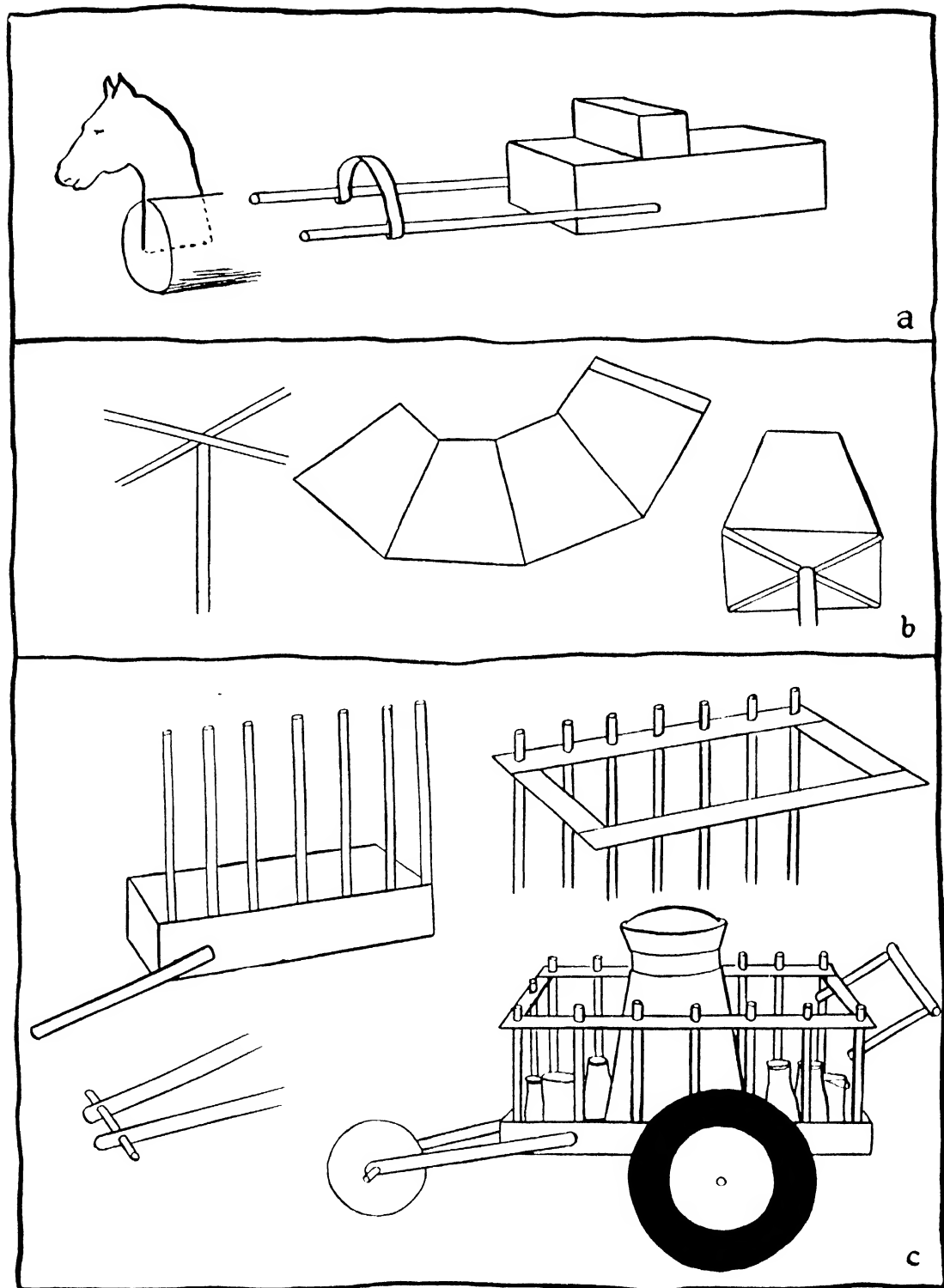


FIG. 18
The Milk Cart
 1065

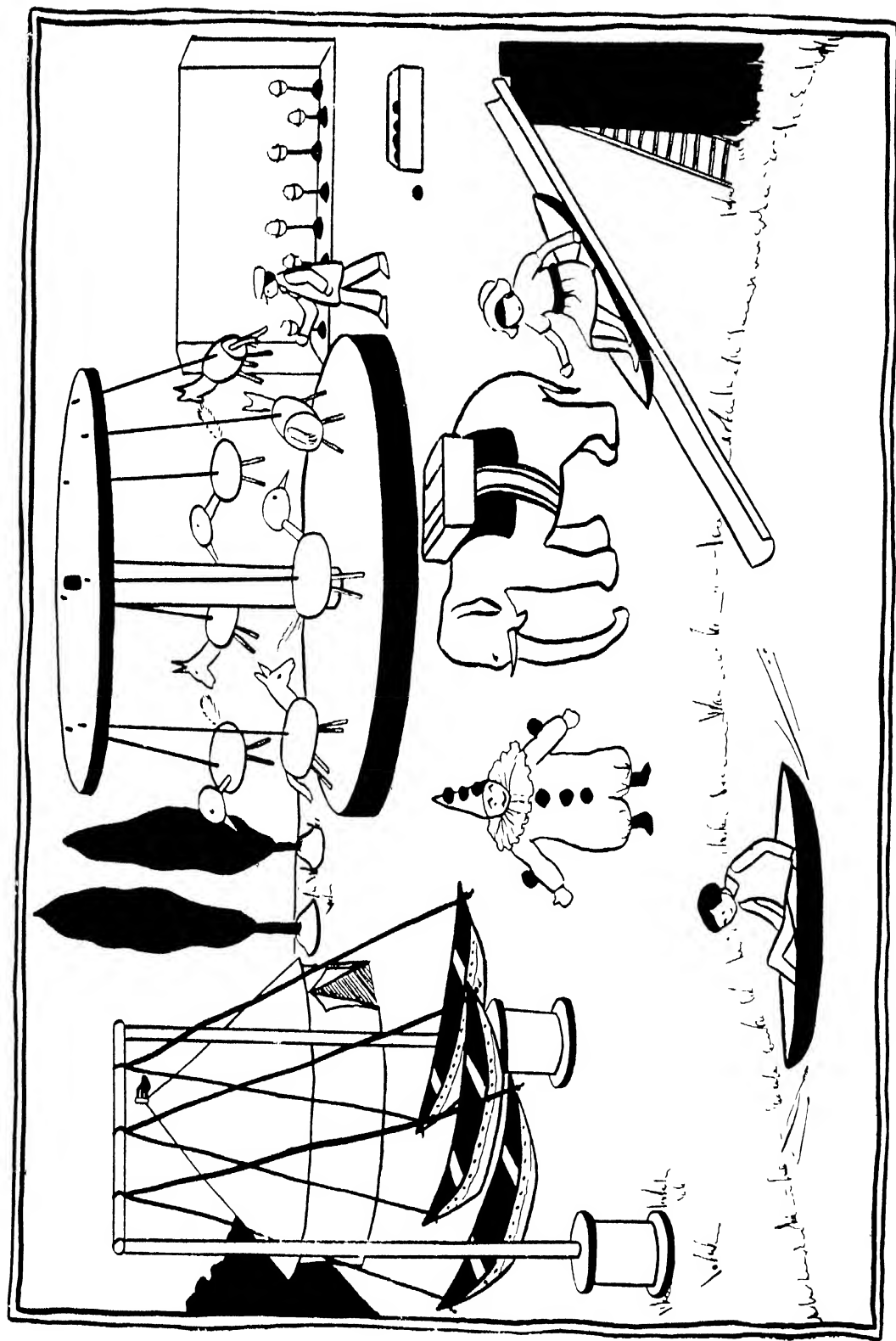


FIG. 19
At the Fair

three sticks of even length, as illustrated. Churn and bottles may be modelled in clay.

A Lamp Post. The lamp is folded and cut from transparent paper (Fig. 18 b), and iron bars inked in. When folded, it is mounted upon a framework to hold it into position. This framework consists of two sticks glued on top of the post in the shape of a cross.

The post is a kindergarten stick or skewer, glued into a cotton reel, which makes a steady foundation.

A Pillar Box (Fig. 15). A short length of postal tube is used, on to the top of which is

A caravan, fortune-teller's tent, swings, coco-nut shies, water shoot, merry-go-round, and other side shows are arranged on the grass; and, last of all, little figures added. These may either be cut out of cardboard and erected upon a stand, or may be dolls dressed in characteristic costume.

The Trees

Twigs from real trees are most realistic, and may be kept fresh for quite a long time if inserted into a wet clay base. (See Fig. 20 c.) The poplar trees here are cut out of rubber sponge, and

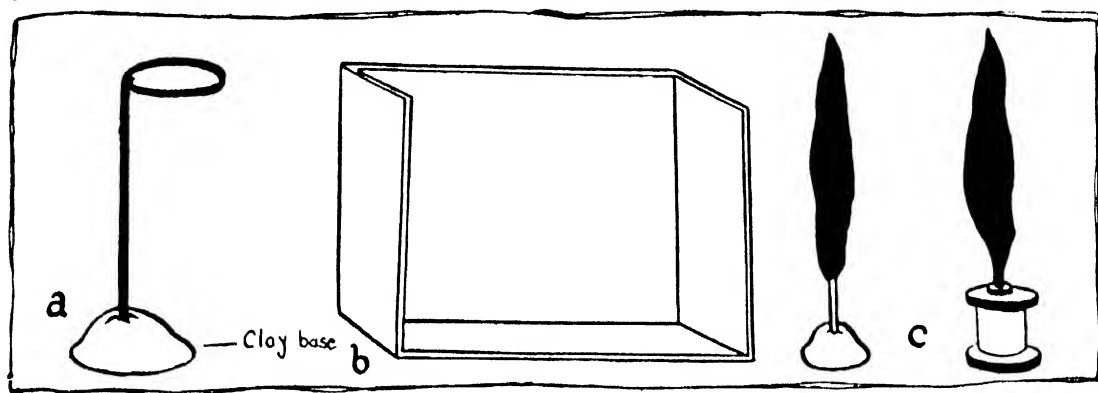


FIG. 20

For the Coco-nut Shy

pasted a circle of stiff paper. A slit is cut to receive letters, and the whole painted bright red. A square of white paper is pasted on underneath the slit.

The Village Pump. See ground for sentry box, in paper-folding section, page 994, for the pump. Pieces of macaroni make handle and spout. A small shallow box is glued on for trough.

A Model Fair (Fig. 19)

A delightful little model fair can be assembled from numbers of toys made in the handwork period. Rough towelling, dyed green, is used for the grass. A hole is cut in this, through which gleams a piece of tin foil representing the lake. Glue or tack the tin foil and towel into place upon a large board. A background of trees and bushes is put in, and one or two may be dotted about on the grass.

coloured. A cotton reel makes a good support for these toy trees, but is more suitable for trees that are set into pots, when the reel may be coloured. A clay base, covered with artificial grass, makes a realistic little hillock for outdoor models.

The Merry-Go-Round. See bandstand in *Toy-making* section, page 1083, for construction. The animals used here, instead of chariots, are made in the following way—

The Horse. A cork for the body is slit at one end. A cardboard head is set into this slit, and raffia tail and match stick legs are glued on, as in Fig. 15.

The Chicken. A large wooden bead for the body, a small one for the head. Glue a feather tail into one end of the bead, and insert and glue a small stick at an upright angle into the other end, on to which is fastened the head. A thorn serves as a beak, and twigs or match sticks for legs. Colour the whole, and paint in the eye. Or the animals may be modelled in clay.

The Swing Boats

Insert two kindergarten sticks of even length

into cotton reels. Glue a third stick into position across the top. Fig. 21 *a* and *b* shows how the boat is constructed. Fold a piece of stout paper, or thin card 4 in. by $2\frac{1}{2}$ in., in half. Fold again into quarters, and cut as shown in Fig. 21 *b*. Glue the sides on to overlapping edges of centre portion. The seats are made from a straight strip of paper (Fig. 21 *d*).

When the whole model is assembled, it should be gaily coloured.

Coco-nut Shy. Coco-nuts (sweets or clay) are set into wire holders (Fig. 20 *a*), which are supported by clay bases. Several of these are fastened on to the floor of a box which has been cut in half (Fig. 20 *b*). A small box is filled with marbles for the shies.

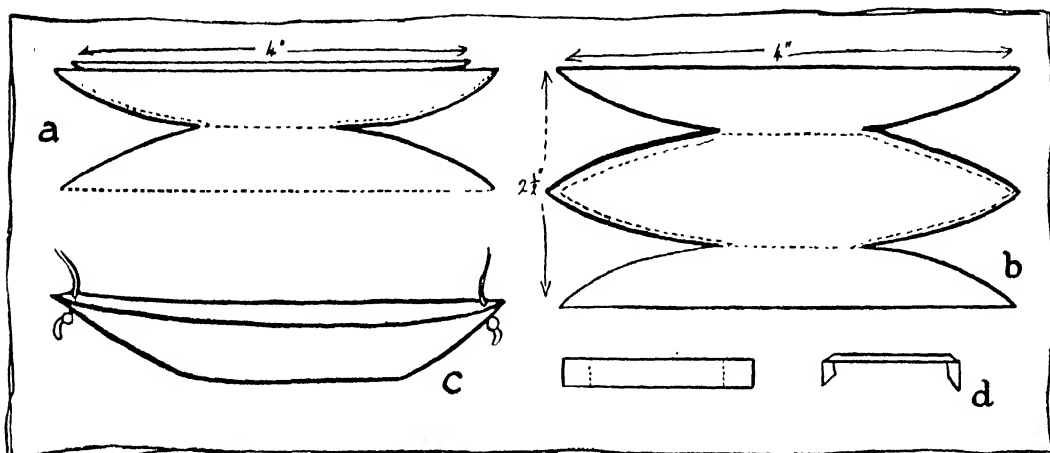


FIG. 21

Boats for the Swing and Water Shoot

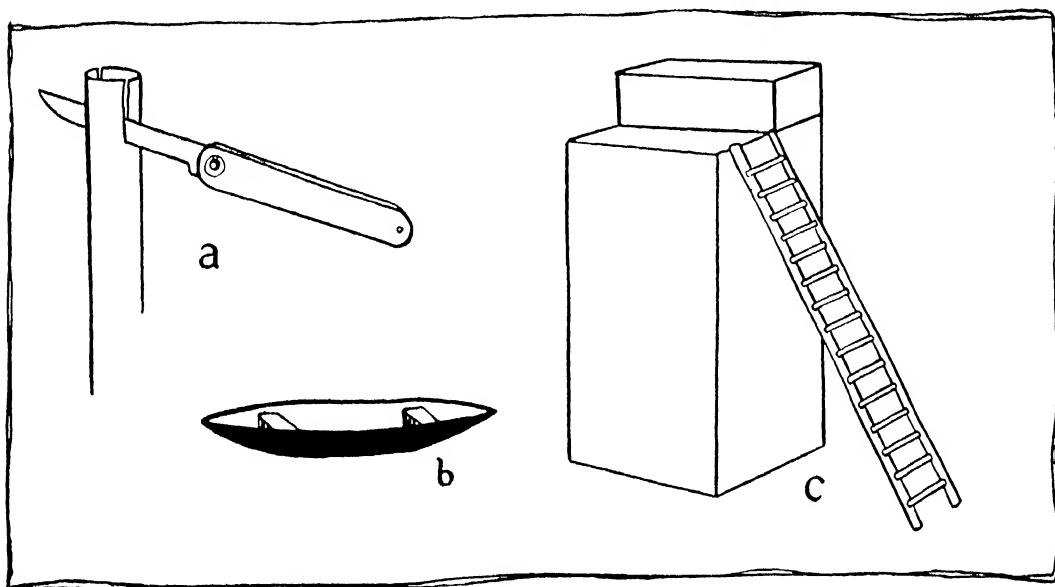


FIG. 22

The Water Shoot

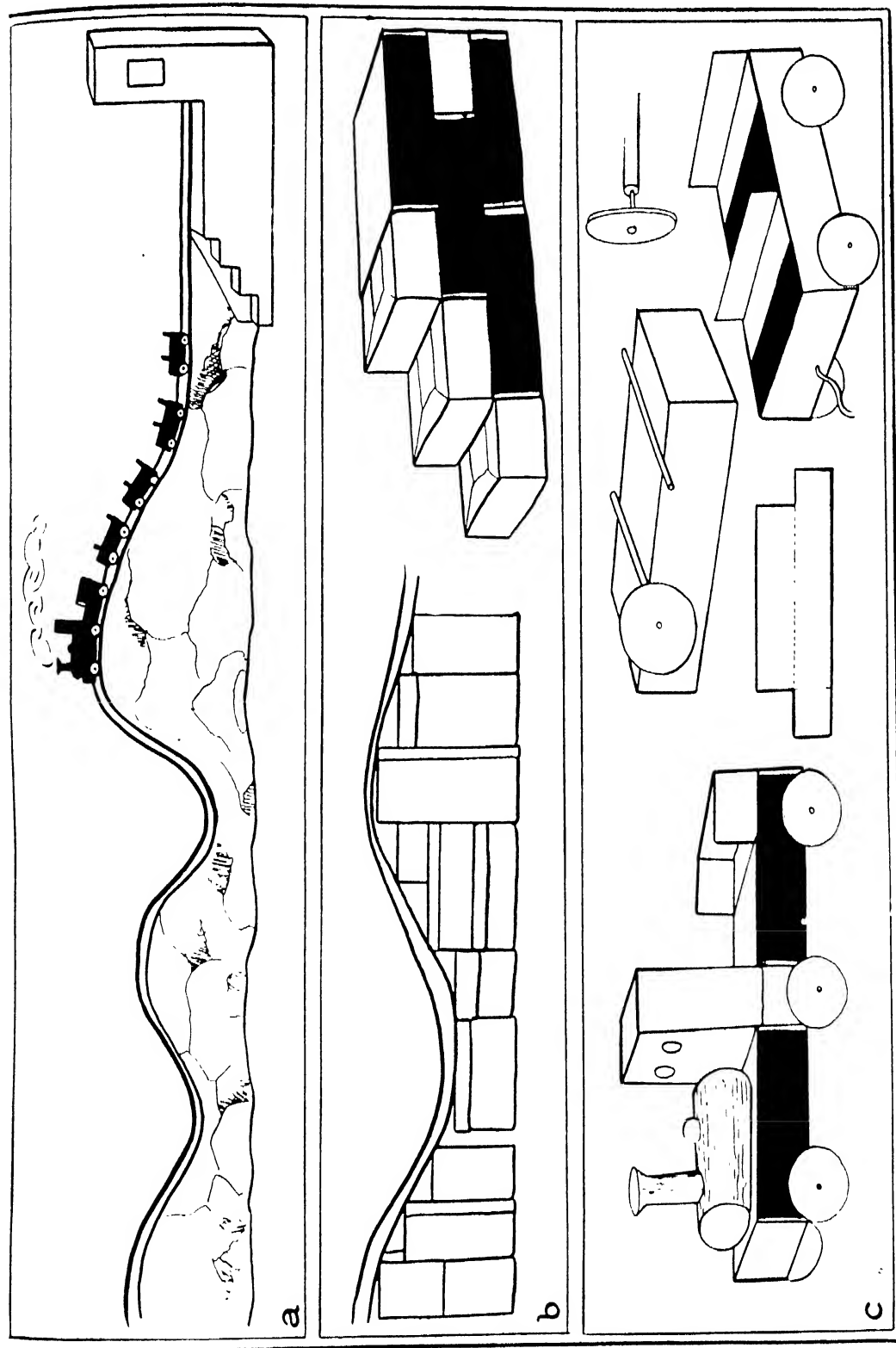


FIG. 23

(a) and (b) *Model of Switchback Railway.* (c) *The Engine and Carriages*

Water Shoot. The boats for the water shoot are made in the same way as those used for swing boats. Two boxes form a platform (Fig. 22 c), against which a ladder is propped. The shoot is made from a postal tube cut in half (Fig. 22 a). It is glued securely on to the mount.

Tent. See Fig. 33 on page 989.

Matches or lengths of kindergarten sticks serve as axles. These are glued on to bottom of carriages and engine, and wheels fastened on with a pin stuck into end of axle.

The diagram also shows how the seat is cut and folded from stiff paper.

Steps and platform are built up from match

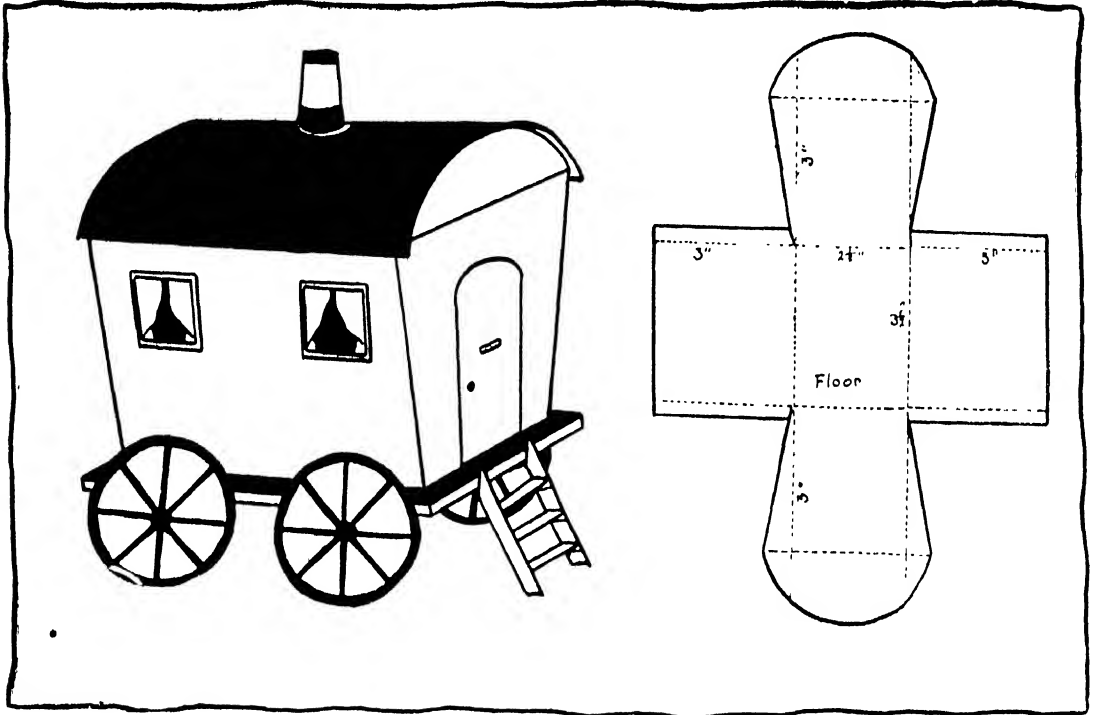


FIG. 24

The Gipsy Caravan

The Switchback Railway (Fig. 23)

The Railway. An uneven stack of boxes is fastened together, and a piece of greeny-grey material placed over the whole to look like rocks.

Across the top of this a long strip of corrugated cardboard is laid. (See Fig. 23 b.)

An Engine (Fig. 23 c) is built up from match boxes and corks. Buttons or circles of cardboard make the wheels. The inside of one match box connects two outer cases. Into this another inside piece of box is placed in an upright position. Half an inside box forms the cab, while the engine body and funnel are made from corks. Cotton wool is used for steam.

boxes, see Fig. 23 a, which are set against a tall box which forms the ticket office.

The Gipsy Caravan

The ground plan for the caravan is given in Fig. 24. This is cut from stout paper and, when folded into position, is glued upon a piece of thick cardboard 3 in. by 4 in.

A strip of paper, $3\frac{1}{2}$ in. by $4\frac{1}{2}$ in., makes the roof, which overlaps a little all round. A cork makes the chimney, or a paper one may be made.

A door and windows are drawn in, steps glued to the platform beneath the door, while button moulds, with spokes drawn on to them, make



FIG. 25
Child's Model of "Seaside," built up on the Sand Tray

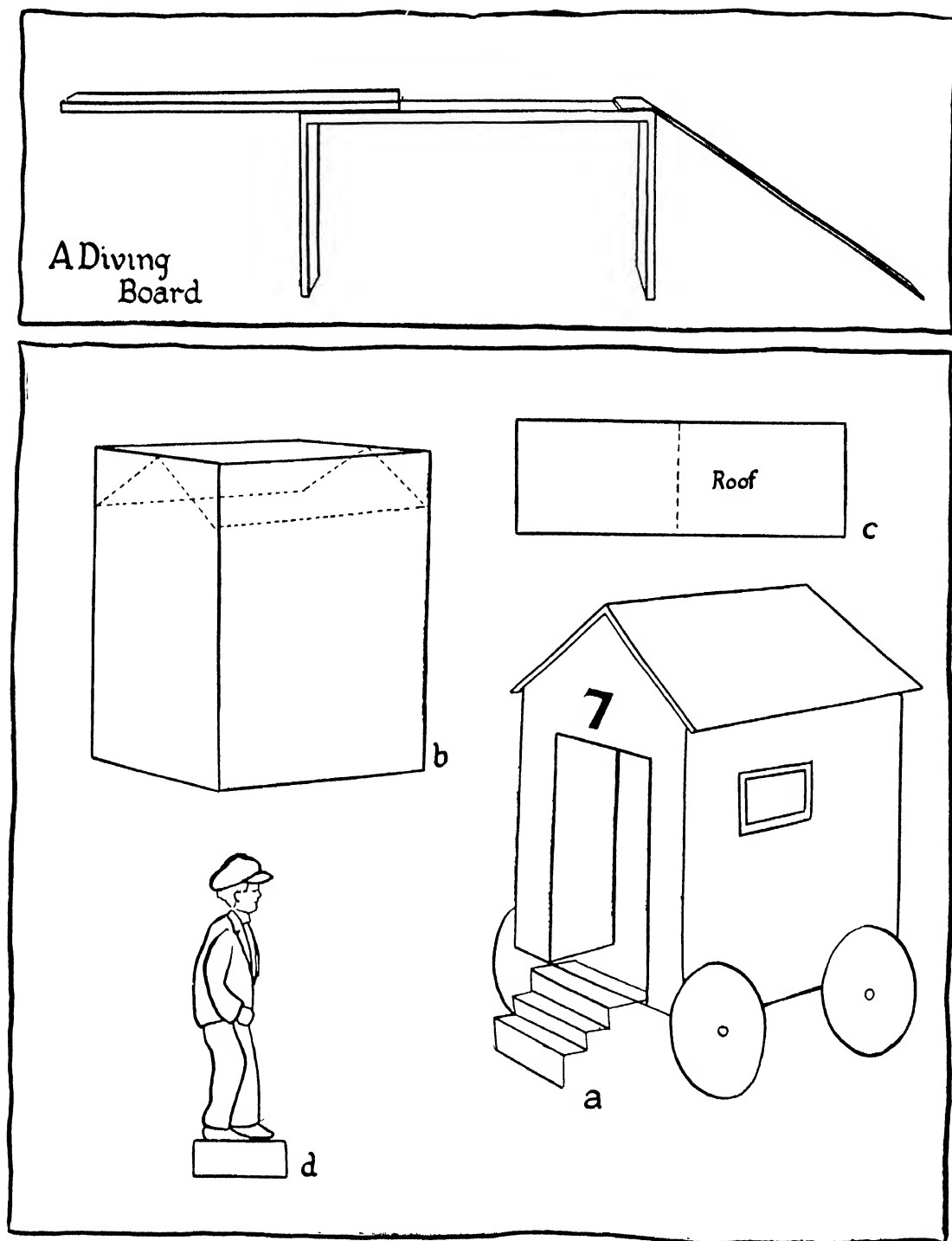


FIG. 26
Models for the Seaside

the wheels. They are fastened to an axle beneath the caravan, like those on the switch-back engine and carriages.

The Seaside (Fig. 25)

This model is built up upon the sand tray. Blue crinkled paper is put down to represent

A Bathing Machine

This could be constructed from paper or card, using the ground form given for a house in the *Paper-Folding* section, page 993, but the easiest way for the little ones is to cut down a deep box (dotted lines in Fig. 26 b), and fix an overlapping sloping roof on to this (Fig. 26 c).

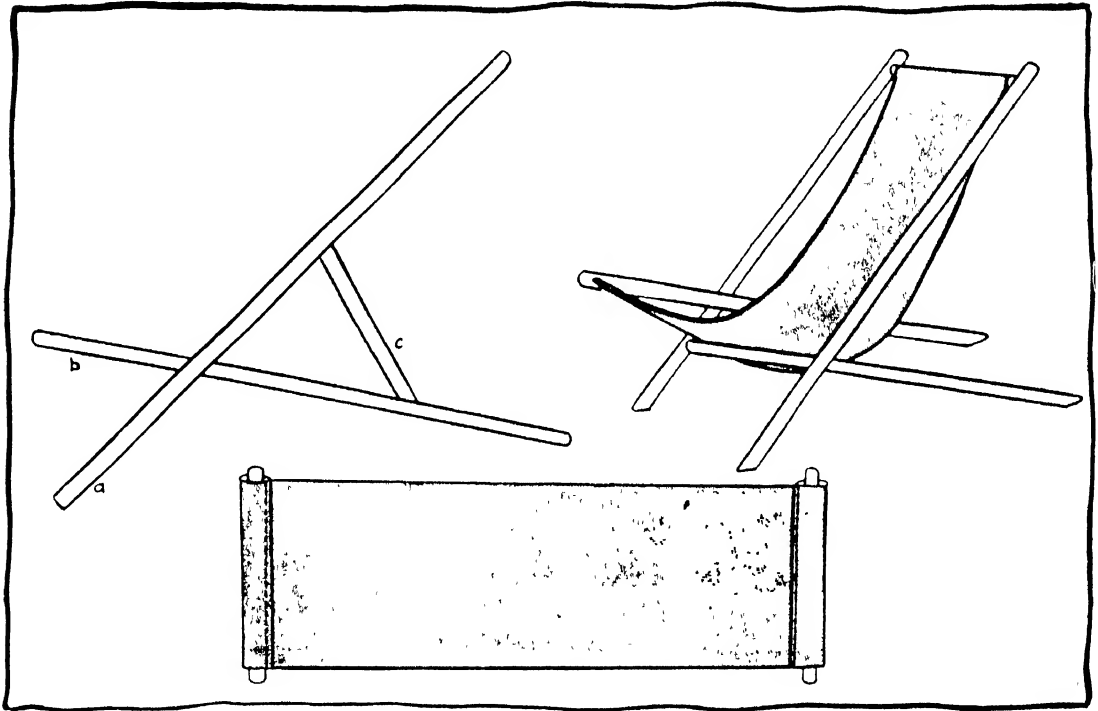


FIG. 27

Construction of Deck Chairs

the sea. The sand is then arranged to form a bay. Sand dunes may be built from damp sand, or cliffs from clay. On the cliff tops artificial grass is laid, with a tree growing here and there.

Stones and shells are scattered on the sand at the water's edge. Paper boats are made, or small wooden toy ones are used.

The donkeys, like those in the Fair, are of cork and cardboard.

Figures may be cut out of illustrated magazines, mounted upon cardboard with a flat base (see Fig. 26 d), which is sunk into the sand.

A door is cut out on three sides, and folded back on the fourth. A small window is cut out at each side of machine, number painted over the door, and steps and wheels added. The completed model should be painted red or green or gaily striped.

The Diving Board practically explains itself. (See Fig. 26.) A long strip of card is bent to form supports, another strip glued on to one side of this, while the mount is made from corrugated paper, which gives the appearance of steps.

A Deck Chair. Two kindergarten sticks of

equal length are glued together (*a* and *b* in Fig. 27). A third shorter stick (*c*) may be added, but is not necessary in a very small model.

A length of canvas (preferably striped) is sewn over two short sticks (Fig. 27). These are glued into position between *a* and *b*.

A Japanese Garden (Fig. 29)

The making of a Japanese garden is a really delightful project, and much easier than it looks. The one illustrated is built upon an old drawing board.

A piece of blue paper is pasted down for the

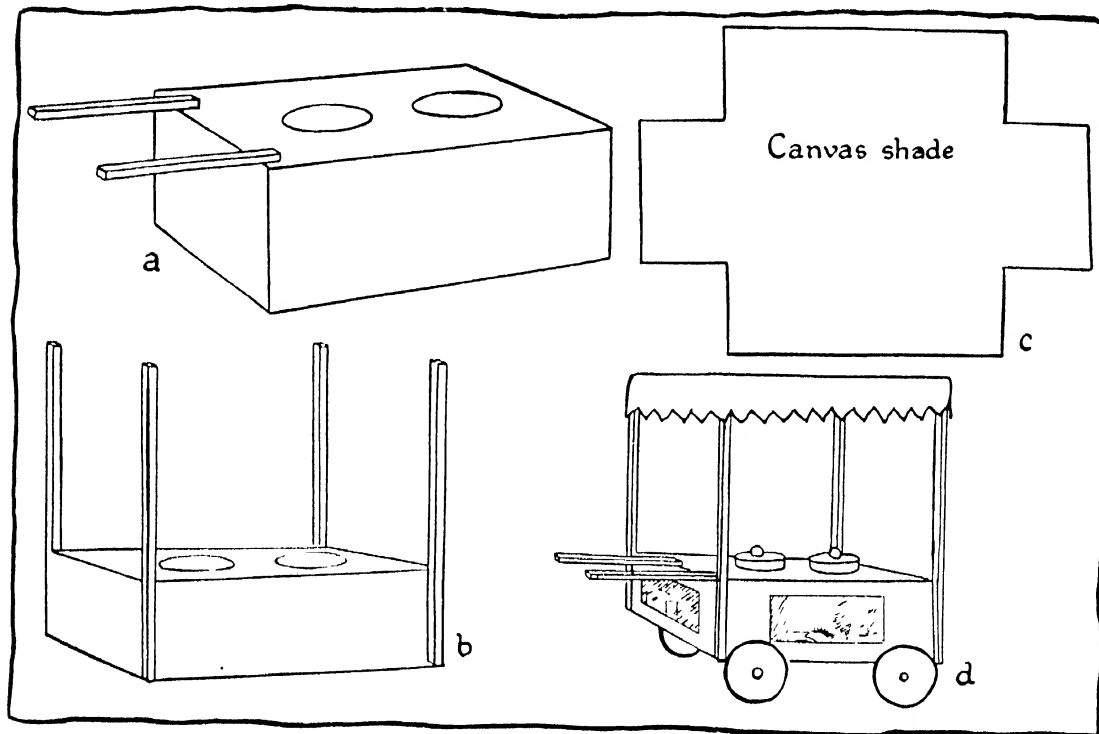


FIG. 28

Barrow for the Ice-cream Man

An Ice-Cream Barrow (Fig. 28)

A fairly shallow oblong box is inverted, and two round holes cut in top. Corks covered with gilt tin foil are fitted into these holes to resemble tops of ice-cream tins. Handles are made from sticks (Fig. 28 *a*), and four other sticks of equal length are glued to each corner of box (Fig. 28 *b*).

A pattern for gaily striped sun-blind is given in Fig. 28 *c*. The corners are stitched up, a spot of glue dropped on to top of each support, and the shade fitted over them. Brightly coloured cigarette cards are pasted on to sides of box, to give it a realistic effect.

stream (or a piece of glass is better), and the ground is modelled over this. Wall papers, printed with Japanese designs, are used for the models.

The Ground is modelled from paper pulp (see *Modelling* section, page 972), and painted with water colours. Clumps of moss and bush are placed here and there. Pebbles, flowers, and artificial grass (which may be obtained from a greengrocer), are also used to advantage.

The Pagoda. Full working directions are given for this in the *Paper-Folding* section (see Fig. 36, page 993).

The Bridge. Fig. 30 gives the pattern for the

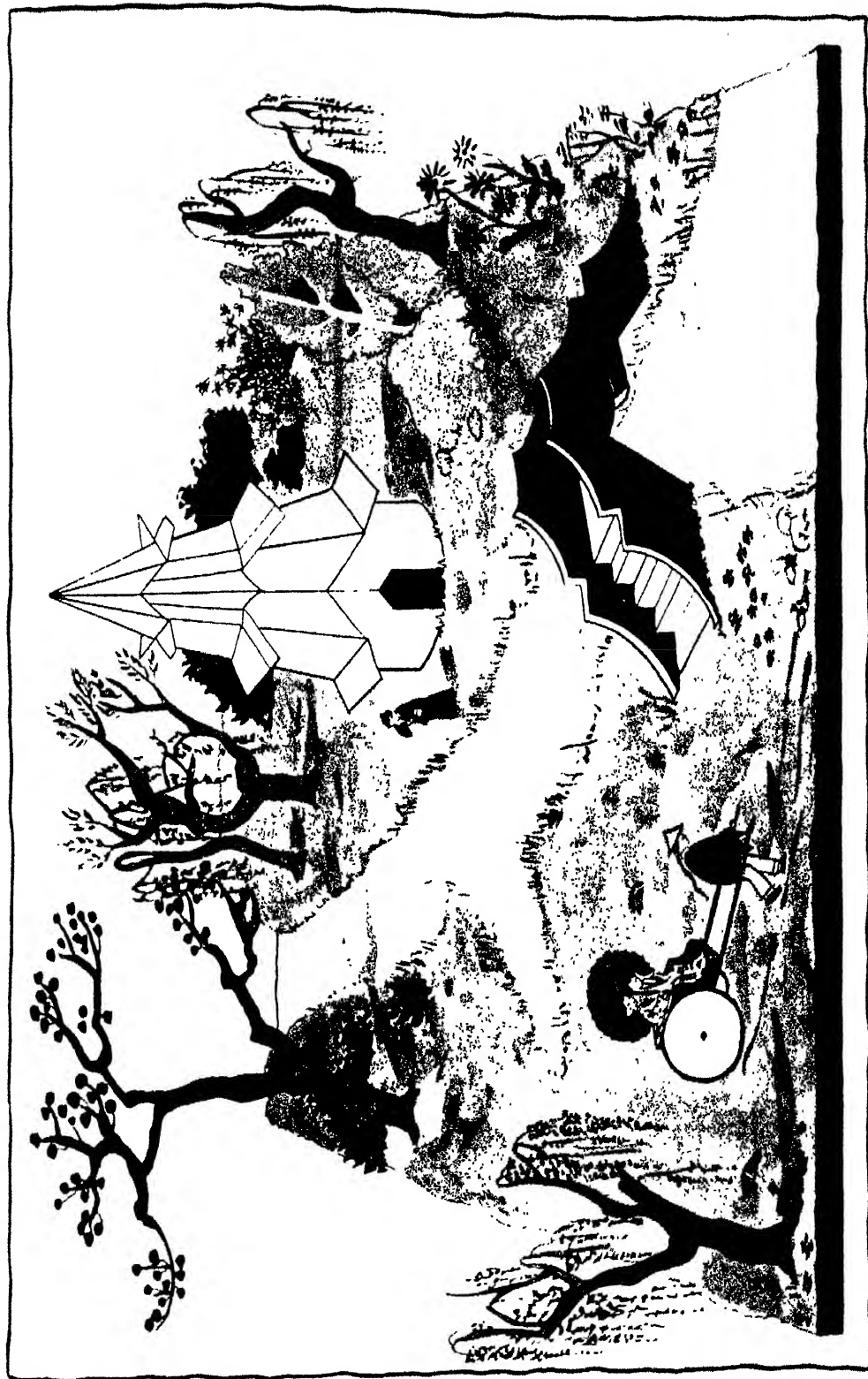


FIG. 29
A Japanese Garden. (Papier mâché Foundation)

walls of the bridge. They are cut from two strips of stout paper 10 in. by 4 in., which are doubled in half—see diagram.

The bridge itself is a double stairway with platform between. Fold a strip of paper 12 in. by 2 in. in half to find the middle. Begin folding $1\frac{1}{2}$ in. each way from the centre, creasing the paper forwards and backwards at intervals of

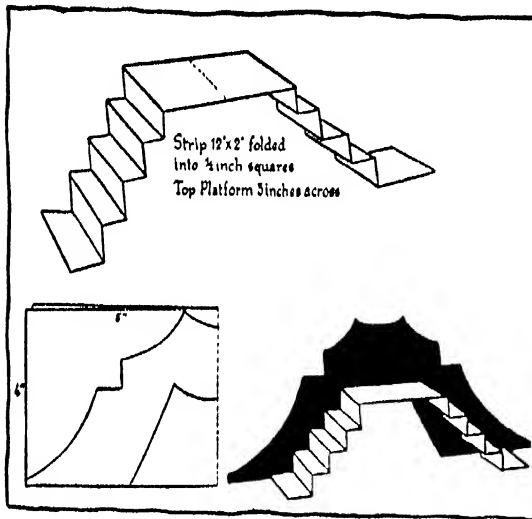


FIG. 30

The Bridge for the Japanese Garden

$\frac{1}{2}$ in. The sides of bridge are gummed, when the walls are pressed against them and held in position until they adhere.

The Rickshaw. An oblong box is cut down as the dotted lines show in Fig. 31 a. A small box forms the seat (Fig. 31 b).

Shafts and axle are glued into position underneath the rickshaw (Fig. 31 c), and very large wheels (flat button moulds) are fixed on with milliner's pins. A coat of enamel or lacquer gives a finish.

The Trees. The trees in the finished model look very complicated affairs, but they are really quite simple. Suggestions for making Japanese trees from husks and beads are given in the *Toy-Making section*, page 1089.

The trees with drooping blossom are made in this way. Gnarled and knotted twigs are procured, to which are glued the strings of falling

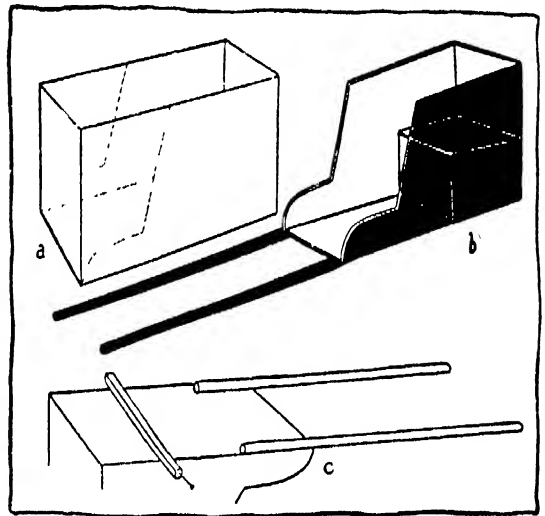


FIG. 31

Construction of Rickshaw

blossom. Lengths of fine string or wool are cut and dipped into a jar of gum. Then, while still wet, they are rolled lightly across the top of a layer of tiny scraps of crinkled paper, which are prepared beforehand.

Figures. Fascinating little Japanese dolls can sometimes be procured quite cheaply in an Oriental bazaar, which are the real thing—or dolls may be made and dressed from wire and crinkled paper. (See also *Toy-Making section*, page 1082.)

TOYS TO MAKE AND PLAY WITH

THE making of toys is a fascinating adventure for the child, but teachers who are suggesting and guiding the work should observe two rules—

1. The toy chosen should be made of inexpensive, if possible waste, materials
2. It must not take long to make, or the child will lose interest in it. For example, a shop stall, once erected, can be played with at once, and the saleable commodities can be added from time to time. It may even change its character, but the stall itself, once there, need not be reassembled.

Stock of Materials

A scrap-box or cupboard is a necessary pre-

liminary to toy making. Collect old boxes of all sizes, from gas-mantle and pill-box to dress-box, centres of ribbon rolls, discs from tins, tins themselves, old stockings both silk and wool; pattern books of wall-paper; linoleum; cloth of all kinds, scraps of wool, string, ribbon, threads, clothes-pins, and button moulds; and many other useful "waste" materials, too numerous to mention.

It is not generally known that printers' off-cutting strips, many of them 2 in. to 3 in. wide, can be had from printing works; also, where bookbinding is carried on, waste scraps of bookbinders' cloth may be bought for next to nothing. Cardboard box manufacturers have scrap strawboard which may also be cheaply

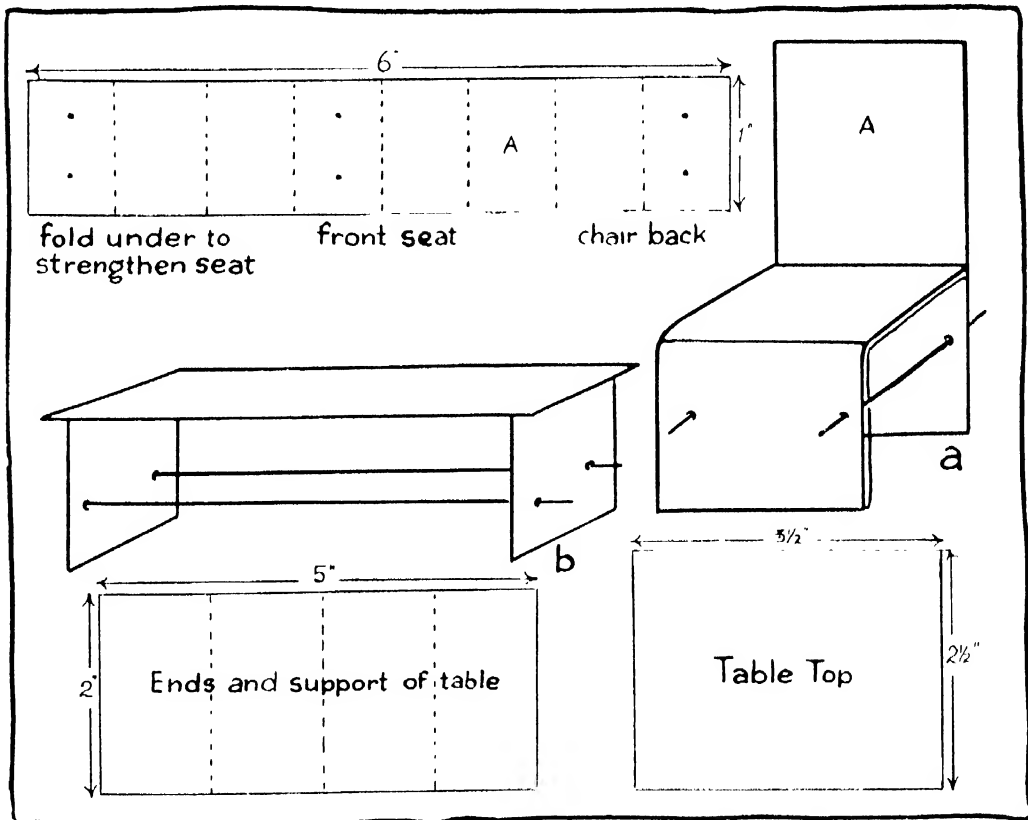


FIG. 32

Cardboard Construction of Table and Chair

obtained. In addition to all these materials, flour-paste, glue, varnish and paints are needed for fixing and finishing.

Doll's Furniture

Under this heading, work is shown in various types, rather than a completely furnished room

pleted is of double thickness of paper throughout. The table (Fig. 32) has the top pasted to the frame. Thin cane or wire makes two rails which act as supports to the table ends

2. *Settee, Chair, and Bed.* *Materials:* Stiff patterned wall-paper is effective, as these constructions imitate upholstered suites. The principle is that of constructing a frame and a box

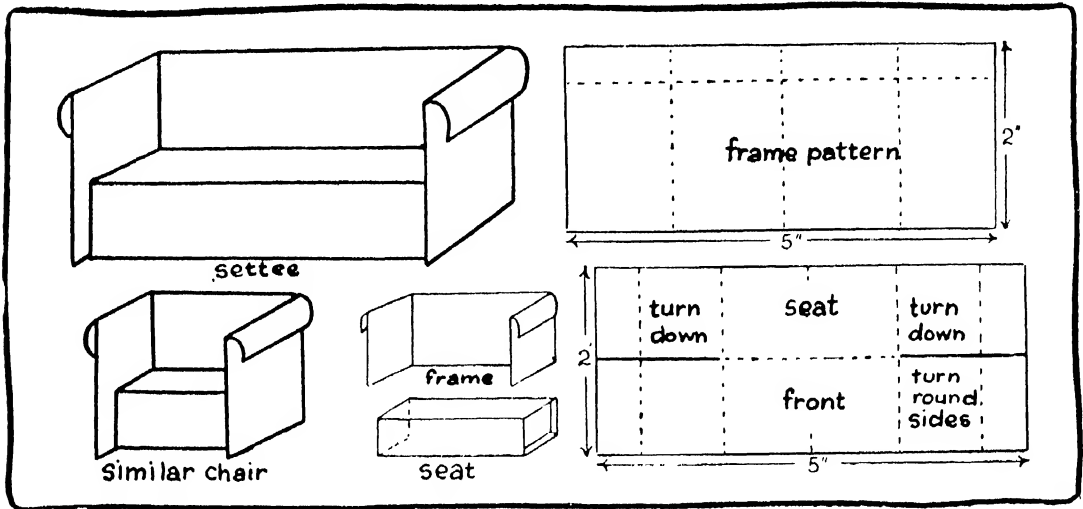


FIG. 33

Sofa and Easy Chair made with Paper or Cardboard

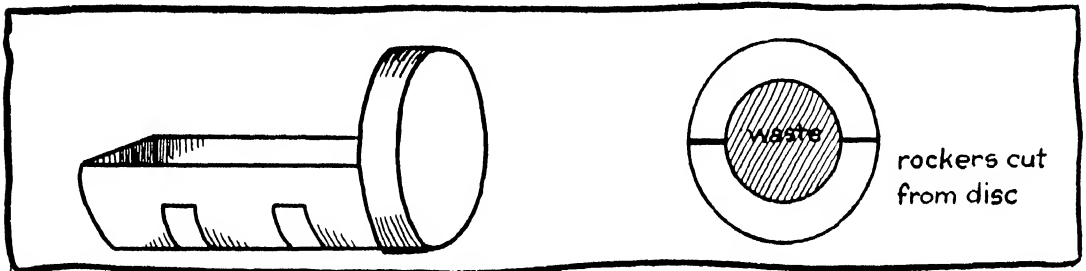


FIG. 34

Doll's Cradle from Cardboard Box

of one type. From these suggestions, the varying needs of children of different ages and circumstances may be met.

1. *Simple Chair and Table* (Fig. 32). *Materials:* Off-cuttings of stiff paper, thin cane, or rolled paper for supports, paste. Fold and sub-fold the paper strips, to obtain the required eight sections (Fig. 32 b). The chair when com-

pleted is of double thickness of paper throughout. The table (Fig. 32) has the top pasted to the frame. Thin cane or wire makes two rails which act as supports to the table ends

3. *Cradle* (Fig. 34). *Material:* Cylindrical box. Here is one example of box-cutting for furniture. The lid forms the head of the cradle, while rockers, fitted into slits in the body of the cradle, are made from a cardboard disc.

4. *Cream Carton Chairs* These are self-explanatory. The cream carton may be painted with varnish paint, or "upholstered" by covering first with a piece of woollen stocking, and then with a piece of silk or cretonne. The lid which forms the seat may be upholstered similarly. A pill-box, painted or upholstered in a similar manner, makes an effective footstool.

Match Box Furniture

There are many arrangements of match boxes which make charming furniture shapes. The sizes of boxes vary, and added length may be given by fitting two cases over a box as shown in Fig. 36 b. One or two typical match box pieces are shown.

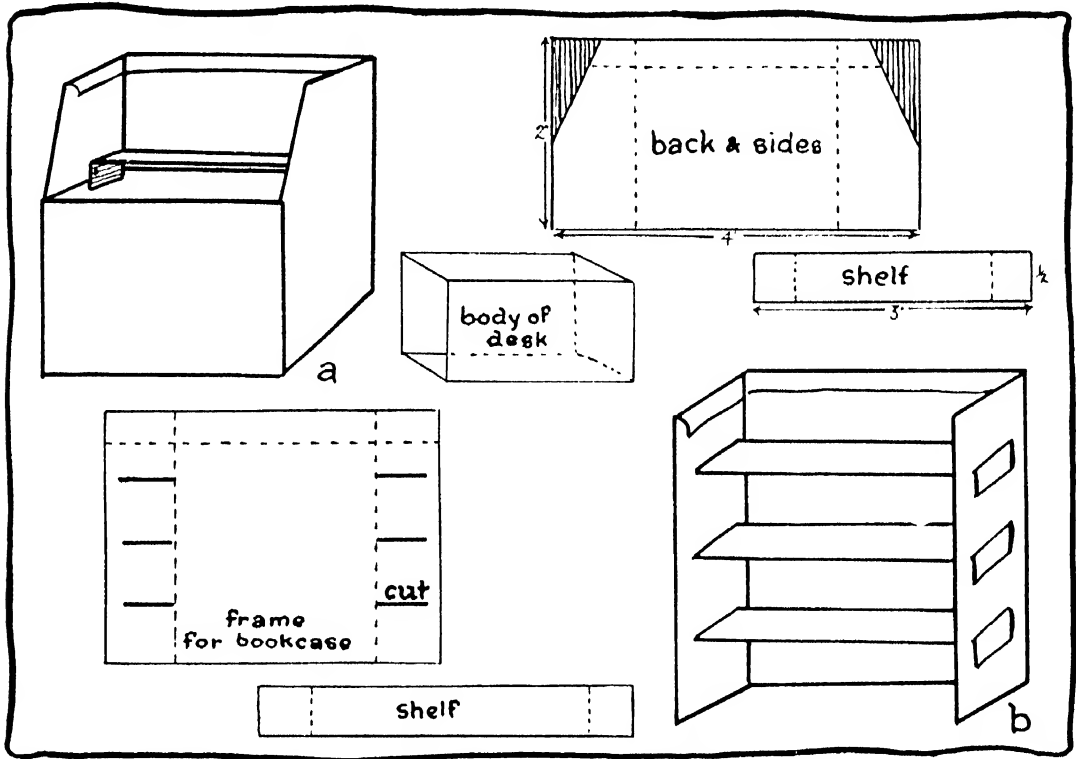


FIG. 35

A Desk and Bookshelves

5. *Desk and Small Bookshelves* (Figs. 35 a and b). The diagrams are self-explanatory. The shelves of the bookcase are passed through slits in the bookcase frame, and the flaps folded down and pasted.

In all such models, the paper should be cut in sizes suitable to the rooms which must be furnished, but it is well to note that paper furniture should be kept small if it is to be effective. The painting and decoration of such furniture depends on the schemes decided upon for different rooms.

1. *The Writing Desk* Seven small boxes glued together and covered with dark paper. Drawer handles may be paper fasteners, or boot buttons fastened by slipping a piece of match stick through the shank, inside the drawer.

2. *The Office Chair* (Fig. 36 g) is one case cut in half, with a half box on top, rounded off for arms.

3. *The Grandfather Clock* (Fig. 36 f) is made of two boxes. A whole case is used for the top, and a piece of case cut for base. Wrap with suitable paper, and make a "face" of white paper, and dial-hands fixed on by a paper fastener.

4. *The Dressing Table* (Fig. 36 *d*) is of two "Swan Vesta" boxes and cases. To give the drawer opening, cut away one side of the case. Wrap round with a strong paper band. Match sticks may be glued on for legs, and the feet may be match heads, or better, blobs of sealing wax. The mirror is a piece of stiff

or pulpboard, some strips of $1\frac{1}{2}$ in. wide binding cloth (or *passe-partout* binding), distemper paints, paper, etc. Fig. 37 shows clearly the development of the walls which make a framework. The frame may be folded for storage. To make partitions, lengths of similar pulpboard, cut down as shown and dovetailed one

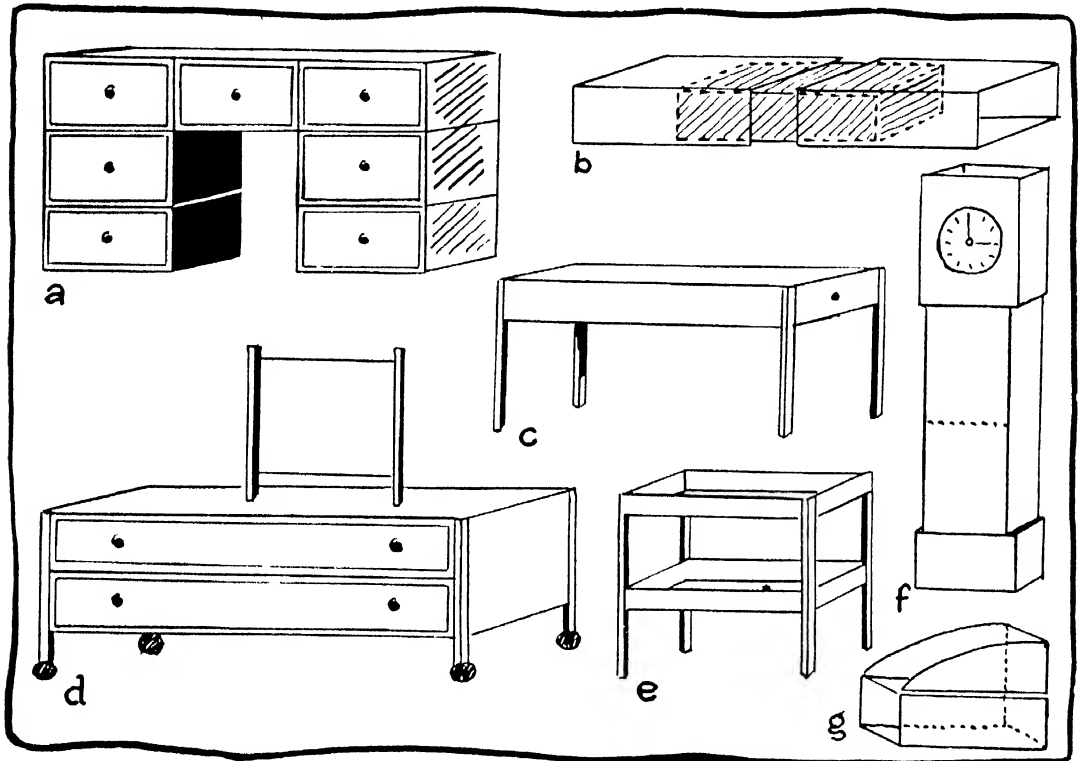


FIG. 36

Doll's Furniture Made from Match Boxes

paper with silver paper pasted on it. It is supported by match sticks.

Table with End Drawer (Fig. 36 *c*) is a "Swan Vesta" box, with match stick legs, and the *Dinner Wagon* (Fig. 36 *e*) is two boxes cut down to make them into shallow trays.

The House

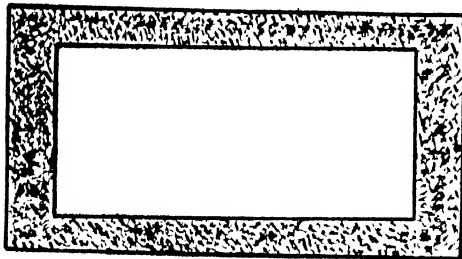
This may be simply an arrangement of boxes, or the shelves of an orange-box. But a "real" house, a one-storied bungalow, is not difficult to construct. *Material*: Stiff white cardboard

into the other, like egg-box partitions, divide the interior into four rooms, with a passage from front to back. The roof is an oblong of suitable measurement to fit over the gables and give slightly overhanging eaves. To make straight ceilings, or if attics are desired, a sheet of thin cardboard should be laid flat on top of partitions, before the roof is put on. The chimneys shown are round.

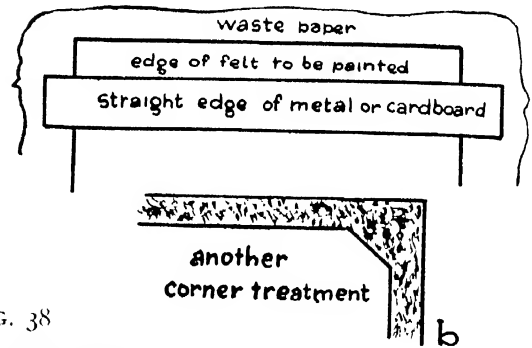
All doors and windows are cut out. The windows may have shutters by half-cutting the uprights of the window-frame and folding outwards instead of cutting out completely.

The walls may be distempered or papered according to taste. A delightful living room wall treatment can be secured by mixing flour paste with inks, stippling one colour on another. This takes the place of distemper.

corner, another variety of marginal border is shown (Fig. 38 *b*). It may be noted that this method, using a brush and a little water-colour, will give coloured borders to booklets, Christmas cards, calendars, etc.



a



b

FIG. 38

Rug for the Doll's House

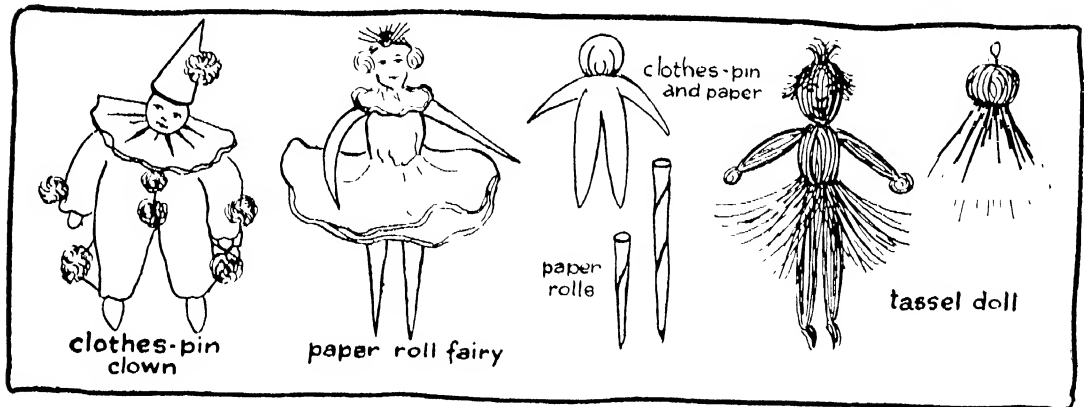


FIG. 39

Figures for the "Circus"

Rugs

These may be woven in raffia or wool, or if intended for a hall or kitchen, made with plaited rushes. Pieces of plain coloured felt, parts of old hats, decorated with a border, make excellent rugs.

A border (Fig. 38), which may be dabbed on with a sponge wet with dark colour, is made by leaving the required width of felt uncovered against a piece of waste paper. Apply evenly, moving sponge, after dabbing, in the direction of the waste paper. A clean edge is essential. By arranging the straight edge across the

Toy-making

So many toys can be made with boxes, that only one or two examples are shown, and these combine boxes with other paper constructions (page 991), and with clay modelling (page 972).

1. *The Circus*. *Materials*: Tent: Stiff paper, long oblong, see page 989; cane, thick and thin. *Cage on Wheels*: Ready-made boxes, deep box, and shallow match-box case, see page 995. *Animals*: Clay, or stiff paper for double silhouette shapes; also paint, glue, etc.

2. *A Hoop* may be made of thin cane, tied with thread, and laid between two folds of

gum-paper. These are sealed together, and when dry, the paper may be cut away, leaving a paper hoop.

3. *Cage on Lorry* (see pages 905 and 1065). The box for the cage is cut down at the two ends. Then the sides are cut, so that spars are left. The ends of these spars, which protrude below the

be made in a variety of ways. The sturdy clown may best be depicted by dressing a clothes-pin in white cloth or crinkled paper. The daintier Columbine may be made from paper rolls, and dressed in crinkled paper, or from a tassel of white and pink wool (See *Wool Work*, page 1019)

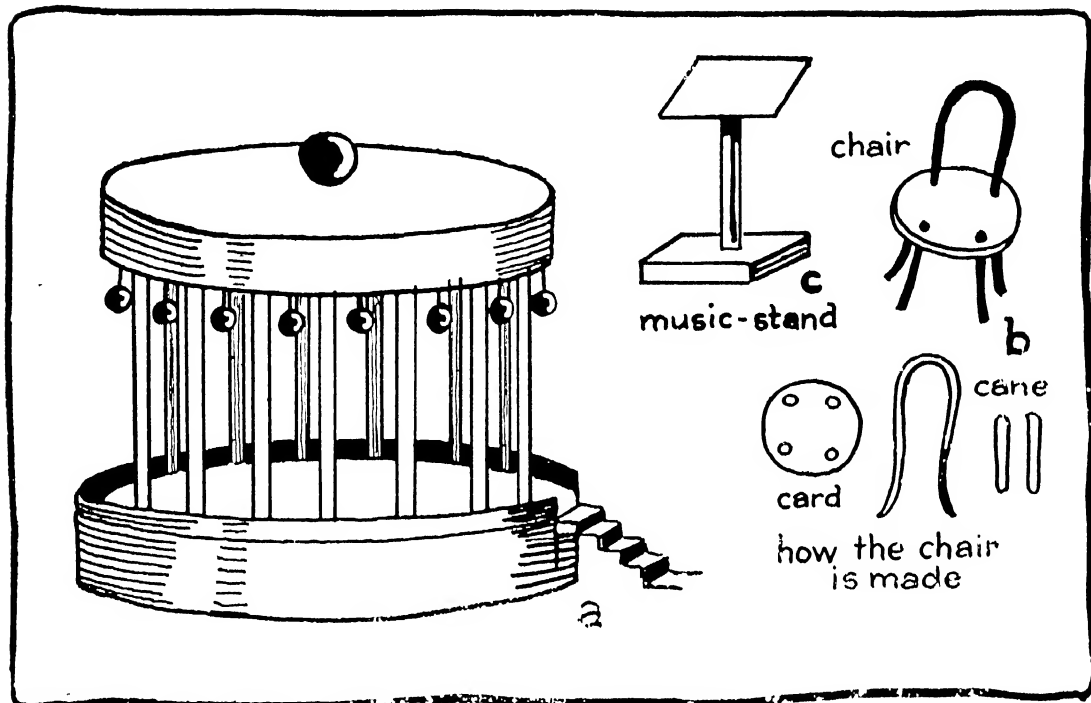


FIG. 40

Bandstand and Accessories

main edges now, are fixed into slits cut in the large match-box case, or box lid, which forms the "lorry." Thus the cage is set securely on the lorry. A piece of match-box or folded stiff paper makes a driver's seat. Wheels may be button moulds, milk bottle tops, or discs of cut cardboard. Shafts would be lengths of cane. Drawing pins are the simplest fastenings for wheels, though a thick wire, twisted at the end, and passed through between the wheels, and again fastened at the other end, makes a workable model

4. *Animals*. See Section on Modelling, page 972.

5. *The Clown and Columbine* (Fig. 39) may

Box Band-stand and Merry-go-round

Materials: Round boxes for collars, jellied fruits; shallow hat boxes, etc. Scrap cane, wooden skewers, cardboard, matchboxes coloured beads, wooden reels, walnut shells

6. *The Band-stand* (Fig. 40) is supported by skewers or cane pillars. These may be pushed through the floor, which is the upturned box, or attached by a blob of hot glue, which, when dry, secures the "pillar" to the floor. The "lights" hanging round are coloured beads, also the ball on the centre of the roof. Realistic chairs (Fig. 40 b) may be made by bending one

cane and using two other scraps for legs, and pushing these through a disc of cardboard on which four holes are punched by the teacher. The hole would correspond to the size of scrap cane available. The conductor's platform of clay, or match-box, supports a music stand (Fig. 40c) which is a cane split at the top to hold a piece of card folded to represent a music-rest.

7. *The Merry-go-Round* (Fig. 41), similarly constructed, must, however, have some means

Spinning Toys

Materials : Discs of cardboard, waste material from tins of patent foods, etc. There are many varieties of this revolving toy. Two are illustrated, showing the principle involved (Fig. 42, a and b).

By putting a bowl, either cut out in paper, or drawn, on one side, and a goldfish on the other, the illusion is created, when the toy is

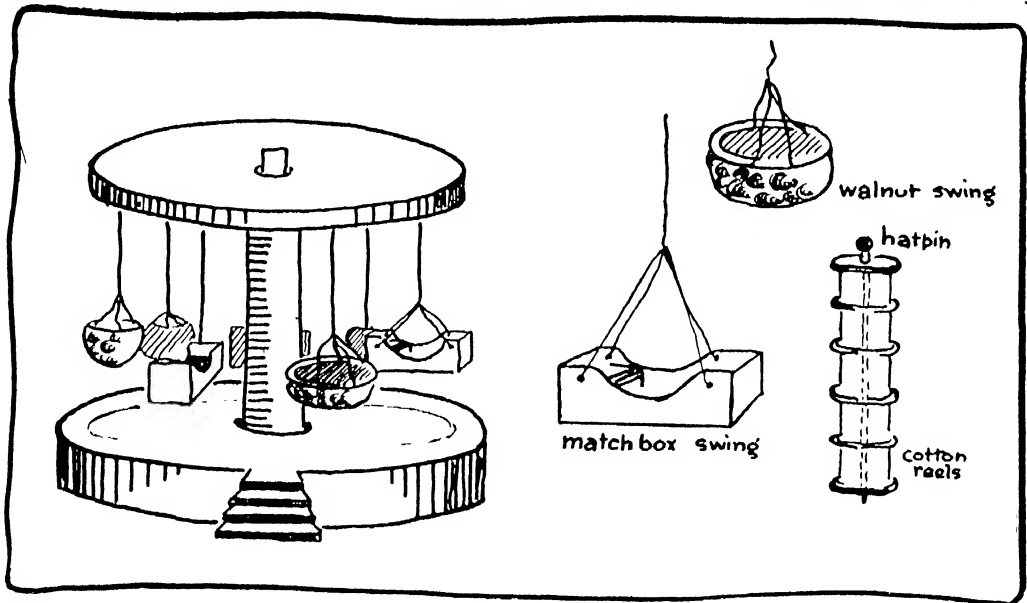


FIG. 41

The Merry-go-Round

of obtaining a revolving roof. A cylinder of strawboard (in which music or papers are sent by post) may be inserted in an opening cut in the floor. A cream carton lid is glued under the middle of the roof, and a skewer is pushed through the middle. When the end of the skewer is twirled, the roof revolves. Another way to deal with this is to glue empty cotton reels together for the centre column, then use a hat pin passed through roof and inserted in the hole through the bobbins. This revolves more easily than in the previous method.

Swing boats of match boxes cut and brightly painted, or of painted walnut shells, are most effective. They are attached by threads to the rim of the lid forming the roof.

spun round, of the fish swimming in the bowl. Threads must be attached to two opposite edges of the circle. If the holes for these threads are punched, the toy lasts longer. A more elaborate model, the jockey on the horse (Fig. 42 b), shows another suitable subject. Sometimes two scraps, or cut out pictures from books, may be combined to make this toy.

Throwing Game

Materials : One small round box, a large button mould, some marbles. On pages 299 and 300 are examples of games that may be made from boxes, marbles and other improvised equipment. These games are particularly useful in connection with Number Training.

Motor Race Game

Material: One shallow dress box, one disc, or centre of ribbon roll, cane, or match stick, cardboard, paints. Here is one of the many racing games so dear to the hearts of children. These games have also a value as Number

Movement Toys

1. *Walking Market Women* This and subsequent examples show movement toys. *Material:* Cardboard, paints, paper fastener, beads, and wire

Many such toys can be made. A simple out-

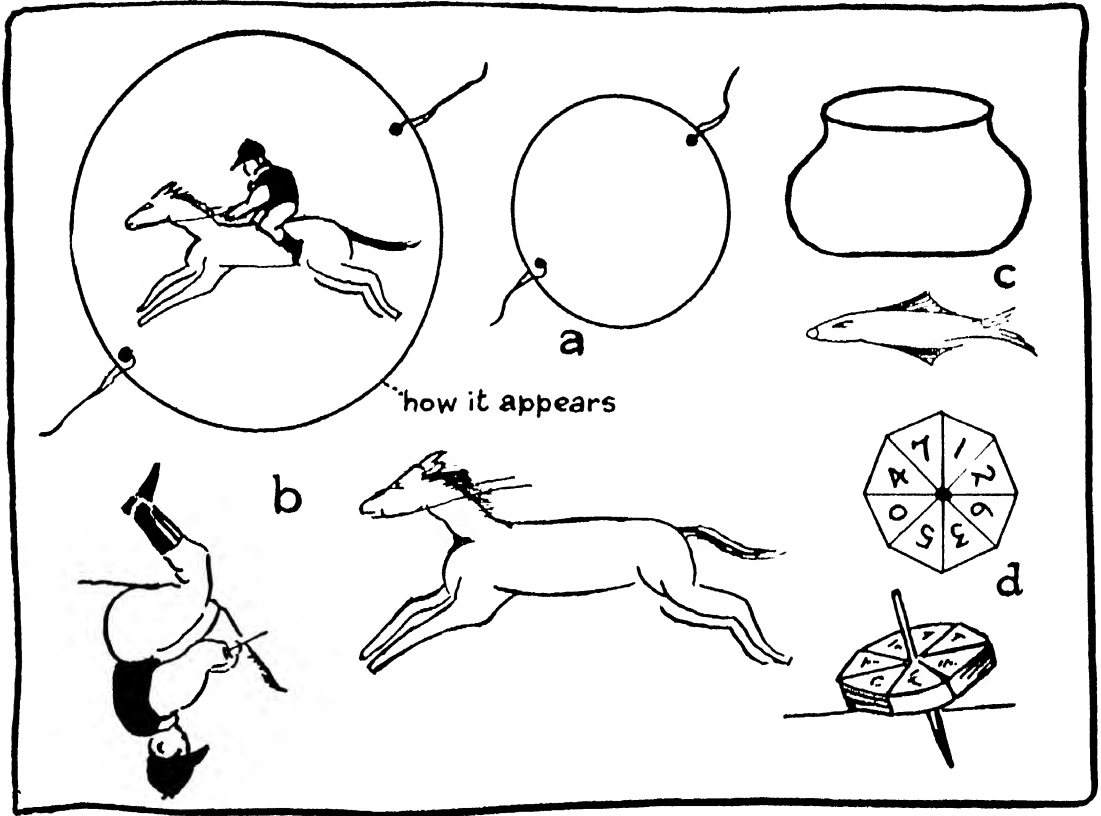


FIG. 42

(a), (b), and (c) *Revolving Toys*; (d) *Spinning Top*

Training. The racing track is marked out on the lid of the box, and the cars are cut from double cardboard and coloured variously. A top may be made as in Fig. 42, and when spun, indicates to the player how many moves may be made. These moves are marked on the track by numbers, and at certain numbers hazards may be put, either by writing on "track," or by having little sign-posts and setting them on the course where desired.

line of bird or person (Fig. 43 a) cut out in double cardboard has a revolving disc (Fig. 43 b) fixed between the two surfaces. A handle of thick cardboard strip is glued or fixed with a paper fastener at the back of the figure. As this pushes the figure, the disc revolves, and the feet appearing after each other give a life-like imitation of walking. A bead on each side of the disc, sewn through, or fastened through with wire, enables the disc to revolve.

2. *Tumbling Figures.* Materials: Cylindrical capsule, marble, sand, or lead shot, canvas and cloth scraps. The secret of the construction of

3 *Clothes Pin Clowns.* These are self-explanatory. Fingers of gloves, scraps of cloth, tissue paper may dress them as desired. A wool

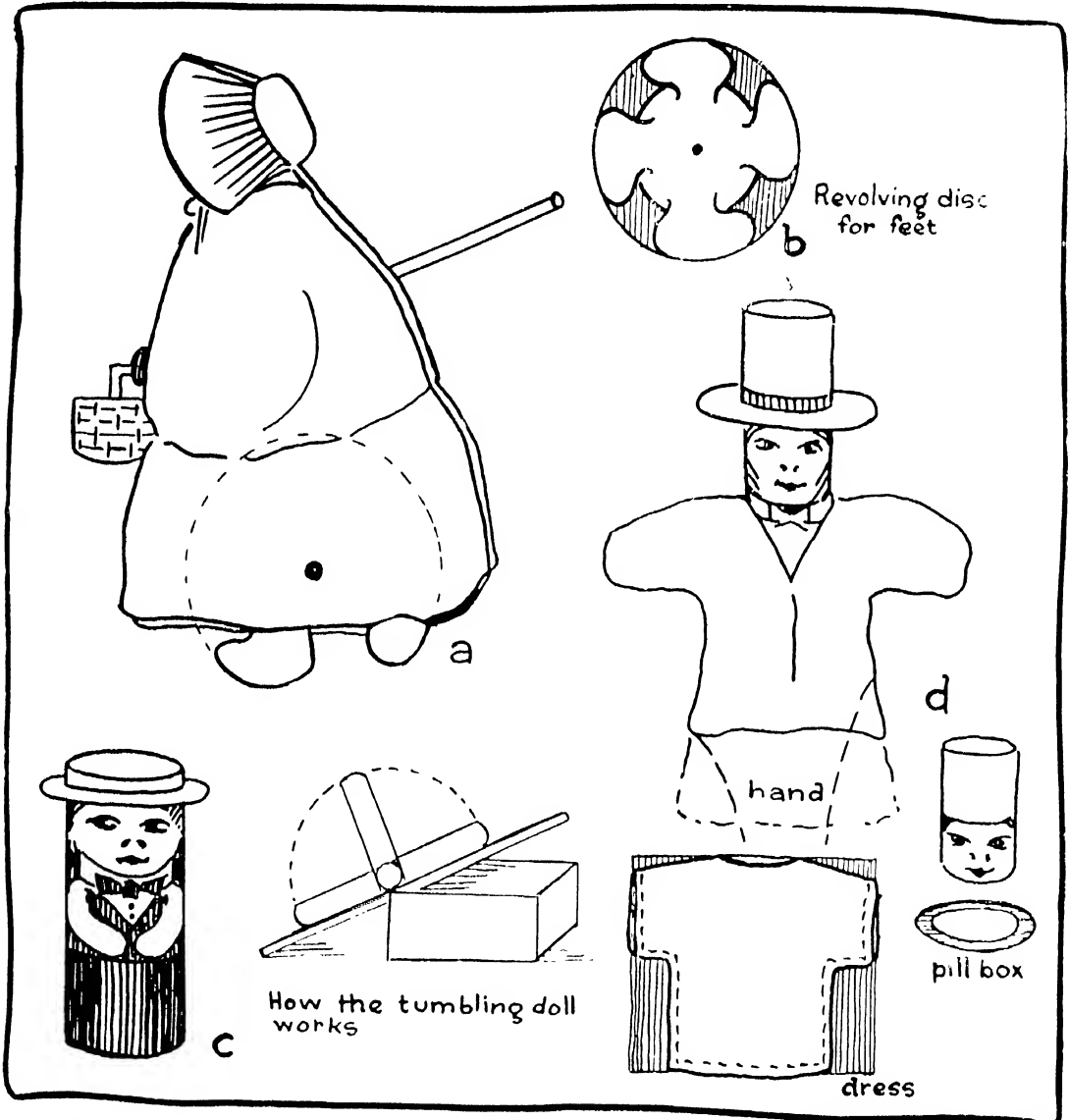


FIG. 43

"Movement" Toys and How to Make Them

these toys is the weight which is enclosed, yet can move from end to end of a hollow cylinder or bag. The first capsule case (Fig. 43 c) may be painted to represent a grotesque figure. It will only tumble successfully on a rough surface of felt or cloth, on a sloping plane.

ball (see *Woolwork*), or a papier mâché ball may be used to knock them off a rope. (Fig. 44.)

A Box Stage

Two boxes are used for this. One inverted makes the stage; one with one side removed

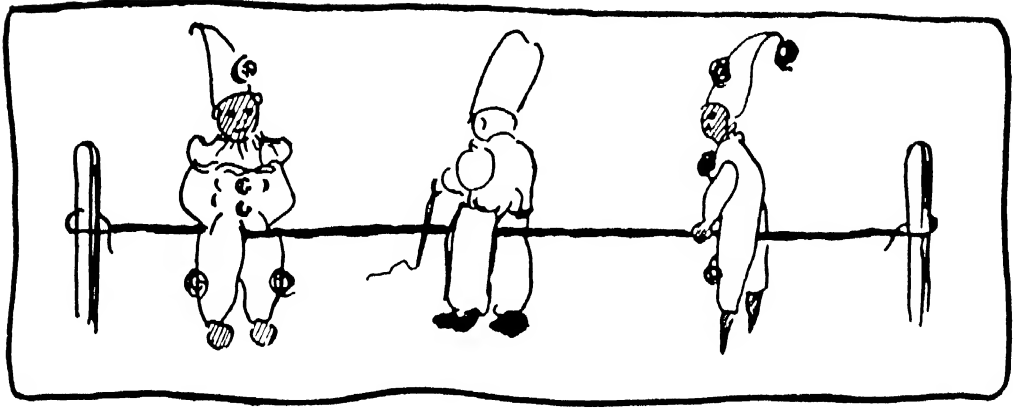


FIG 44

"Clothes Pin" Clowns for the Circus Model

and an oblong aperture cut makes the proscenium. Rods may be fixed along the top on which a curtain can be hung.

largely responsible for the success of the finished golliwog. For further gifts, both for children

Talking and Gesticulating Doll

This type of toy is very popular. A simple dress shape is made into which the hand can be put, so that the thumb and little finger are in two arms, while the middle finger is inserted in a hollow head. One head is shown made from a round pill-box, Fig 43 *d*

Dinah, the Stocking Doll

This requires black stockings, a scrap of fur or wool rug work on canvas, coloured jersey material in, say, red and blue. Fig 45 *a* and *b* explains the construction. A sleeve of a jumper makes a good bodice, while a piece gathered and joined at the back makes the skirt. A white apron of a scrap of muslin, white linen button eyes sewn on with black, and red wool mouth complete the doll. The stuffing of the frame is

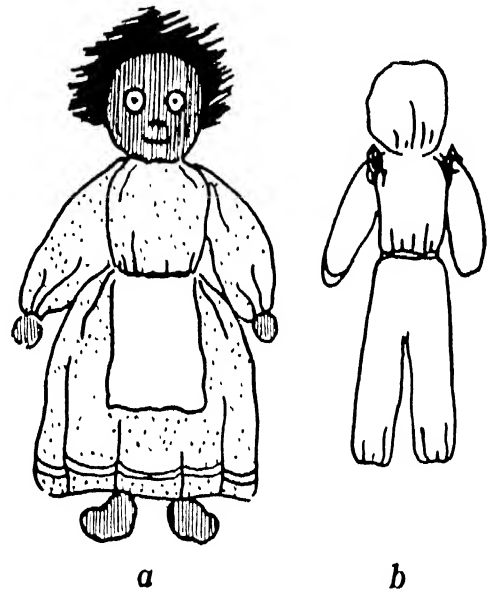


FIG 45

Dinah, the Stocking Doll

and grown-ups, see *Holiday Projects and Books*, also *Raffia Work and Weaving*

GIFTS FOR THE GROWN-UPS

GIFTS for grown-ups are not always easy to find. There are the various albums, shaving blocks, etc., and in the wool-work and raffia section much of the work could be adapted for gifts. Box and glass jar decoration, and a simple lamp-shade, are illustrated; also some odd gifts such as a Japanese garden, and winter decorations instead of flowers, made with cones, poppy heads, crinkled paper, etc.

1. Set of Tins for Kitchen Use

Materials: Canisters of varying sizes, varnish paint, stencil letters, or labels with sugar, salt, tea, etc., printed on them. A set of these can be painted as a gift for mother. A large toffee tin, oval or round, makes a charming container for bedroom biscuits. (See also Fig. 12, page 966)

2. Knife and Cutlery Boxes, etc.

These may be painted, if wooden boxes can be found of a suitable size. If they are of stout cardboard, two candle boxes glued together make a good knife box, while a cutlery box may be divided up as in Doll's House (page 1081) by partitions. In covering these boxes the paper should be cut deep enough to go inside and

outside, and fold $\frac{1}{4}$ in. underneath. Joins should be made just round a corner. The paper may need to be cut at the corners before folding inside. It is better to put in plain paper on the floor of the box, so that this may be changed from time to time.

3. Gift Boxes

Chocolate or other boxes may be covered similarly, or covered with plain paper, and later with cut-paper decoration in contrasting colour. (See page 962.)

Paste papers, which are decorative for all book and box covers, are made as follows. Prepare flour paste, not too thick, about the consistency of Gloy. Allow to cool, and mix in tins, bowls or saucers with coloured inks or water-colours. When you have these bowls ready-mixed, it saves time in working. The process may be varied, but the paper in all cases should be coated with one colour, as if for pasting or gluing, and other colours dabbed or stippled over it. If the paper is folded across and then opened out slowly, a fern pattern is obtained. For an oblong or square box, a pattern resembling a quartered veneer is obtained. By cutting a comb out of strawboard, a graining effect may be obtained without folding. A piece of paper screwed up and twisted round at intervals gives an effect of rose shapes on the background of brush-marked paste. While the paste is moist, finger markings, or markings with match sticks, give interesting results. It should be noted that the paste actually strengthens the paper, so that a thin white printing paper becomes more durable.

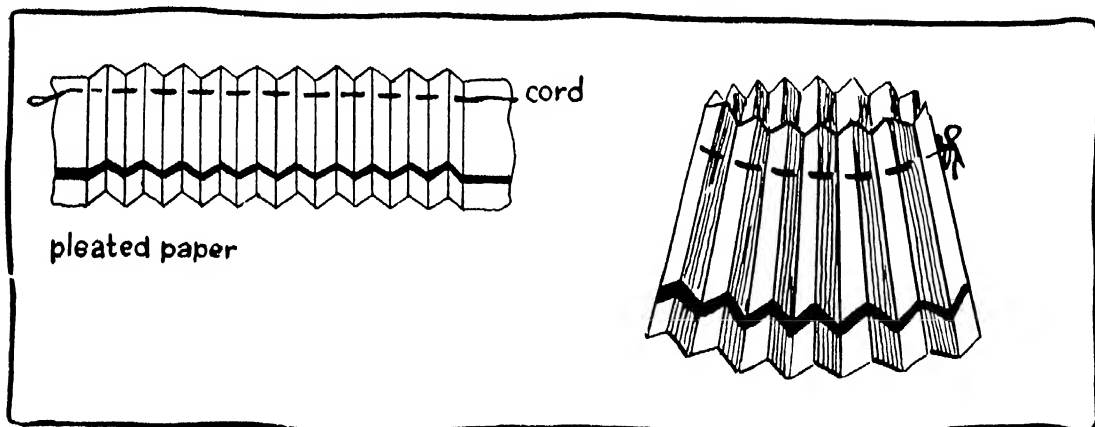


FIG. 46

Lampshade of Pleated Paper

4. Candle Shades

Stout cartridge paper, or paste papers, black silhouette paper, paints, cord, etc., are all useful. (See page 965.) A decoration of trees may be in cut paper, or printed with a large stick, or stencilled. Plain shades of similar shape may be oiled with linseed oil, or coated with shellac, and cut paper silhouettes placed on them. The frilled shade (Fig. 46), which we associate with pottery lamps, is simply made from fan-pleated paper pierced at the top and threaded with cord. An edging of colour might be put on the paper before pleating.

5. For Vases

Materials · Fir cones, open and closed, large poppy heads, dry twigs, beech-nut husks, acorn cups, beads (coloured glass) paint, silver and gold paint, *passe-partout* binding, or scraps of leather cloth, cane, crêpe paper, glue

It is better that these decorations should be definitely fantastic, and so provide grace and colour without emulating the beauty of real flowers. To fix a cone on a cane stalk, bore a hole at the base of the cone with a small bradawl or drill, drop in Seccotine or hot glue, and quickly insert the cane end in the hole. To make leaves, two thicknesses of *passe-partout* binding, say in black, glued together, make the required leaf material. A paper shape laid on this strip and cut round gives the outline. A stiffer leaf is made by laying a length of fine millinery wire along as a mid-rib *between* the two strips. These leaves, in different colourings, may be used for the bulrushes and "red hot pokers." Painted poppy heads are familiar to most. They must be thoroughly dry before they are painted, and the treatment depends on the wish of the child who is decorating them.

Bulrushes and "Red-hot Pokers"

These are made by rolling brown, orange, or yellow crêpe paper round a broom handle. Crush the paper down so that it has wrinkled rings round it, and then slip off the handle and on to a cane or wire. Fasten at the top and bottom with raffia or a strip of paper. To get

the best effect, crêpe paper is used, with the grain of the paper running in the same direction as the broom stick. (Fig. 47)

Japanese Trees and Miniature Garden

Beech-nut husks and bright glass beads, fastened by threads to twigs, are easily made.

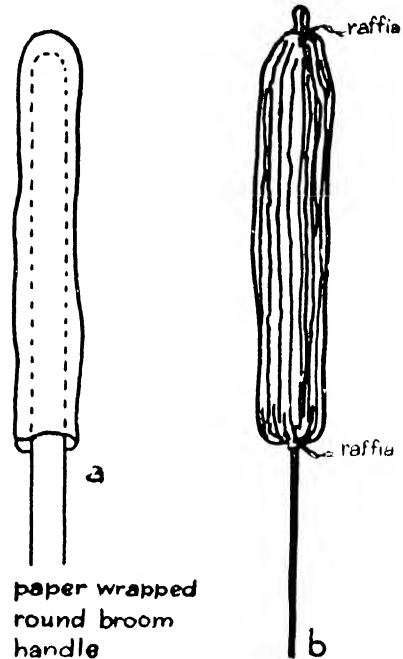


FIG. 47

Making a Bulrush

A touch of gold paint on the beech nut husk may improve the appearance, and there is much scope for a variety of treatment.

Miniature Garden. **Materials** · Circular tin lid, twigs, cane, threads, clay or papier mâché, glass, paper, carrot tops, (if for school use), loofah, etc.

The assembling of this model demands ingenuity. The stork (Fig. 54) may be used, also the Japanese bead tree, and stunted trees. Glass gives the effect of water.

Soft Toys for Children

Only the simplest patterns are here shown.

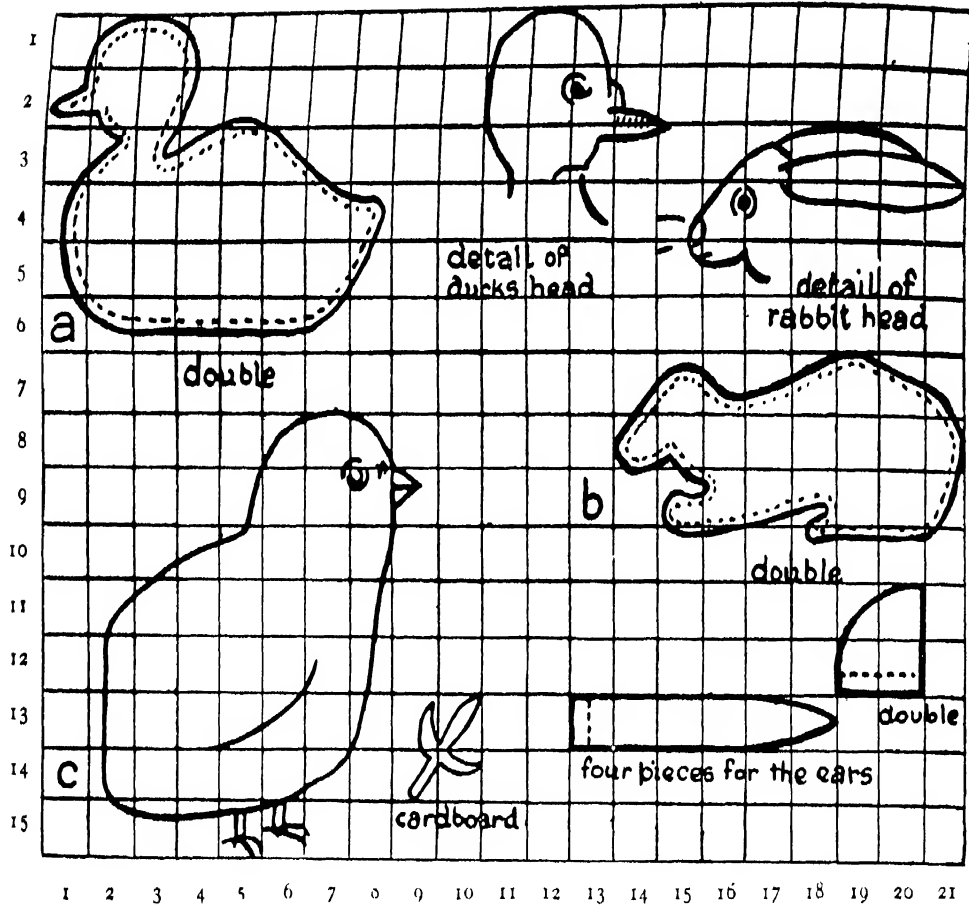


FIG 48

Patterns for Soft Toys

(By working to larger squares, these Patterns can be used for cutting out the materials)

Materials: Old clean blanket, and new swans-down cotton or felt, old clean woollens for stuffing when unravelled, scraps of coloured cloth, wools, etc., for finishing. Patterns should be cut in strong paper. They may be drafted from sketches, as shown in Fig. 48 a, by squaring off paper in, say, $1\frac{1}{2}$ in. squares. This would give a duck about $6\frac{1}{2}$ in. by 8 in. The parts must be firmly sewn together. The beak of the duck should be flattened and blanket-stitched in

yellow wool. The eye should be of black wool.

The Rabbit (Fig. 48 b). The ears are made separately, and improved if lined with a scrap of pink material. The tail is gathered and stuffed, and attached after the rabbit is made up. **The Chick** may have short legs of match stick with wires to represent feet, or may have solid feet of cut cardboard sewn on to the body. (Fig. 48 c.)

HOLIDAY PROJECTS AND BOOKS

MANY of the toys and gifts in the Toy-making Section are suitable for holiday projects. Using rushes and twigs for whips, mosses and lichen for miniature gardens, cones for indoor decoration, the child can find endless fun for wet or stormy afternoons. In addition to these, suggestions are given for outdoor toys for boys, and dainty lavender and seaweed gifts which girls can make. A few of the more effective Christmas decorations are also explained.

For the Boys

Box for Egg Collection. A shallow chocolate or caramel box may be fitted with divisions to make an egg-box for birds' eggs. Thin cardboard is cut into strips to fit inside the box, and fitted together as in Fig. 37, page 1081.

Simple Kites. Materials: Stiff paper, light cane, wood lathes, string, gum and thread. Fig. 49 shows the very simplest construction. From stiff paper, folded as Fig. 49 *a* and cut to outline, make the kite shape. Before opening out, cut two notches to hold the string which connects the kite to the flying cord. This is called the belly-band of the kite. Its position is important. About one-fifth of the length from the top, and less than one-fifth from the point, is the best position for fastening this band. Open kite out, and fold down a portion of the top as indicated by dotted line in Fig. 49 *b*. This is folded outwards.

To attach the belly-band, two small circles of paper may be used with knots on the end of the string attached, as in Fig. 49 *c*. The tail of the kite, which in this case would be of strong thread, should be from twelve to fifteen times as long as the kite, and should have papers tied to the end as in Fig. 49 *d*. The flying cord is attached, and the kite tested.

A Stronger Kite. This may be made of paper or balloon cloth. Two thin slats of wood, or split cane, are cut in the proportion of 7 to 10 units. These are fastened by laying the short

one at right angles to the long 4 units from the top. Fig. 49 *f* shows the frame completed by stretching string from the top to the two arms and so to the bottom. Notchings in the "arms" should hold the string in position.

Lay this frame on paper or cloth, and cut out, leaving a margin of 1 in. all round. These margins are turned down and gummed, or sewn, over the string. If paper is used, strips of gummed paper may be pasted along the arms to keep them in position. Holes are made for the belly-band, and it is fastened on. If the kite is to be painted or decorated with a face, the design must be bold, as the kite is usually seen at some distance away. In Fig. 49 *g* the completed kite with part of the "tail" is seen finished.

Fish Kite. This grotesque type of kite may be used as a "flier" attached to a powerful box-kite string, in which case it would have strings coming from the mouth—or it may be tried as a kite. Thin strong paper and lightweight round cane are needed. Fig. 49 *j* shows the shape, which is sealed to make a long cone similar to a "dunce's cap." A hoop of thin cane is put in the wide mouth of the "cap," the edges are notched and turned in and glued over the cane. The band and cord are then attached. If the kite is to have fish head and body colourings and markings (see Fig. 25, page 706), these must be painted on *before* the cane hoop is fastened in. Fig. 49 *k* shows the finished kite.

For the Girls

A Lavender Cone. Fresh lavender should be allowed to dry and then tied in a little bunch, just below the heads as in Fig. 50 *a*. The stems are then turned gently over to enclose the seeds, and all but the top layer of stems cut just below the inverted heads. The remainder of the stalks are used as spokes, and raffia, narrow ribbon, or silk braid, is woven round these heads and stalks till a basket, shaped like a child's

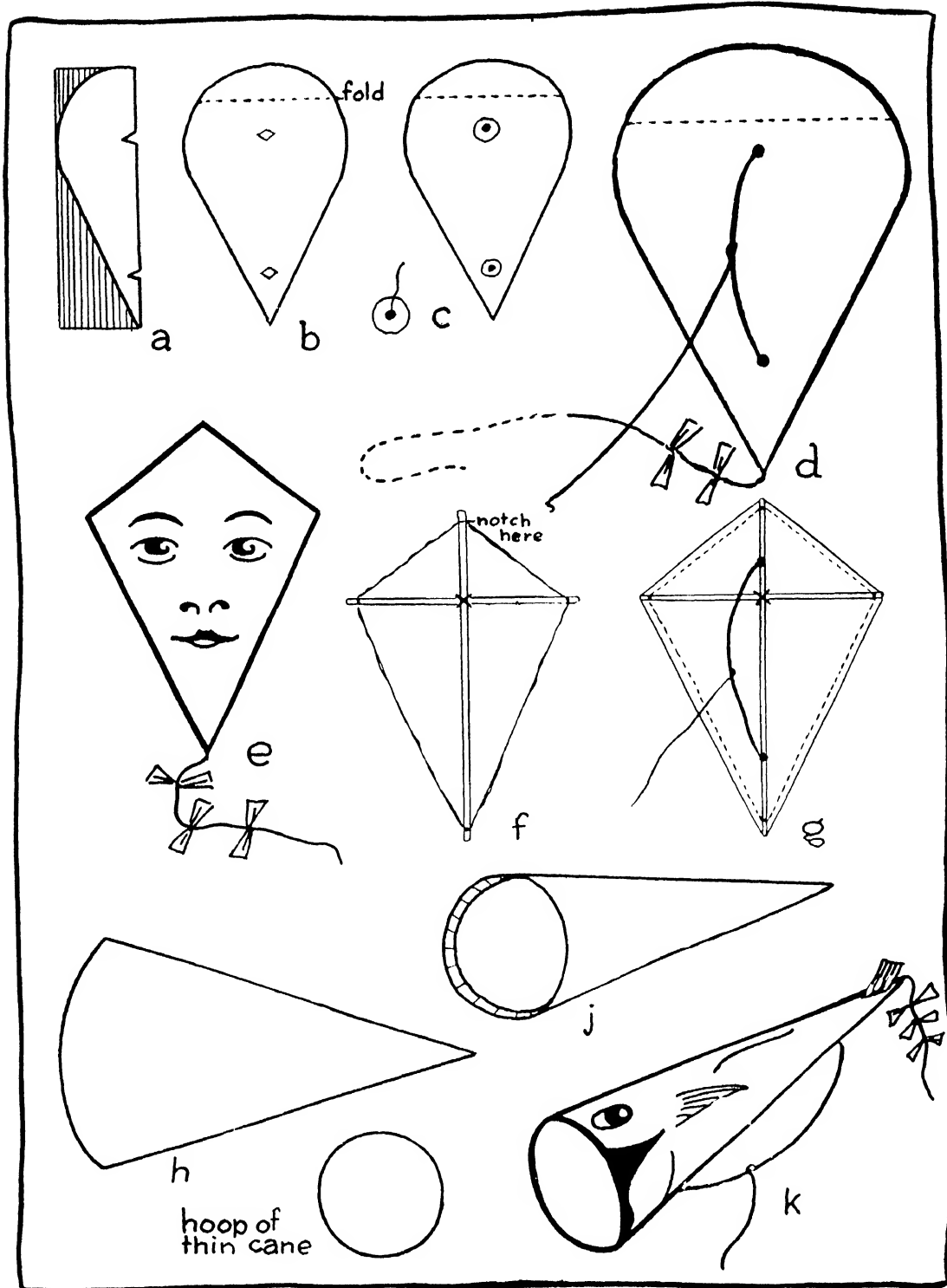


FIG. 49
Construction of Kites
1092

rattle, results. The stalks are then wound with the ribbon or raffia and fastened at the ends with thread. Finish with a bow or loop for hanging.

A Lavender Lady. The lavender heads are tied in a muslin cap, the stems inverted as

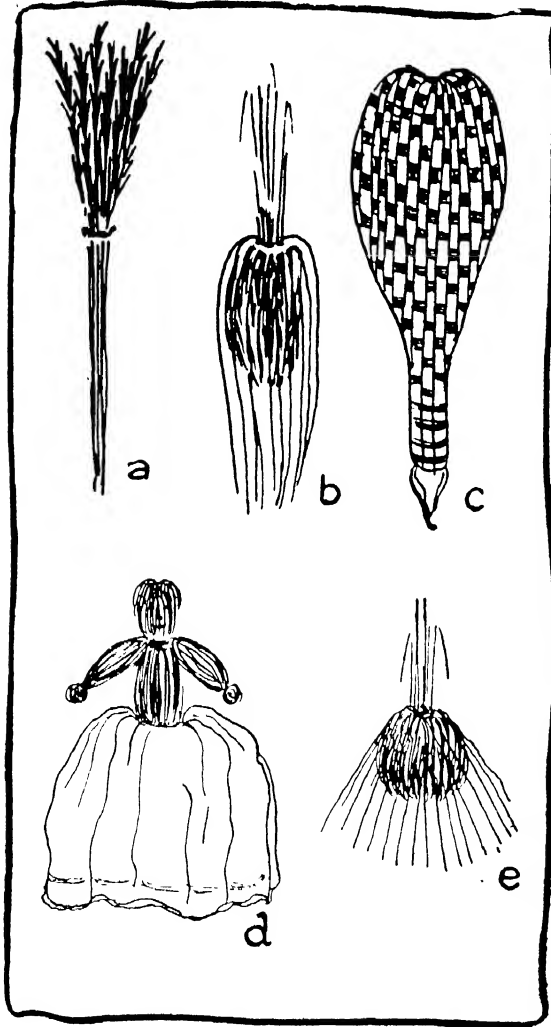


FIG. 50

Lavender Cone and Doll

before, and cut to even length, so that they stick out and make a frame for a crinoline skirt. (See Fig 50 e) Use a china head and shoulders as sold in shops, or a little woollen doll, as described fully in the *Woolwork Section*. The body of the doll is pushed into the centre of the inverted stems, and sewn to the stems or

muslin bag. A piece of broad ribbon, or strip of muslin, is drawn up and fastened round the waist to make a full skirt.

Seaweed Greeting Cards. Little girls who are interested in seaweed may find suitable fern-like pieces among the rocks. Float these in water, insert a post card under them, and gently raise it so that the weed lies as desired on the white surface. Let the card dry on a flat surface, and the seaweed will usually adhere

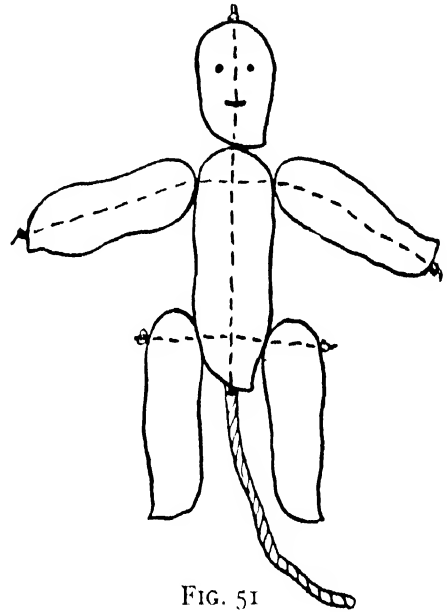


FIG. 51

A Pea-nut Monkey

to the card if the card is put between blotting-paper under slight pressure when nearly dry.

A Moorland Scene. *Materials:* A shallow tin lid, green or other enamel paint, glass, coloured paper or oil colour, clay or putty, moss, lichen, heather, twigs, etc. Combine to make moorland scene as described for Japanese garden, page 1075

From Acorns, Fir Cones, Nuts, etc.

Toys made from these have a quaint charm. In many cases, the acorns and nuts, etc., are pierced and threaded. If acorns are being used, it should be remembered that green acorns are easier for little ones to work with than old

acorns; but if the old ones are soaked in hot water a few minutes, they become less brittle and may be easily whittled and pierced with pins.

A Pea-nut Monkey. Fig. 51 shows how to string six pea-nuts (or monkey-nuts) together to make a little monkey. His eyes are marked with ink. A piece of wool makes his tail. Notice that a large pea-nut must be chosen for the body, and a small one for the head. Acorns can also be threaded together to make little dolls, but acorns are less easy to pierce and their shapes are often less useful.

A Pea-nut Mouse (Fig. 52). This is made from a stumpy pea-nut (monkey-nut). The pointed end forms the nose. The little ears and feet are cut from paper and pasted on; the ears are cut in one piece as shown in Fig. 53 (the ears for the owl). A piece of grey wool, or silk, is threaded on to make a tail. When the mouse is finished, he can be painted grey (black paint mixed with Chinese white), with two black eyes and a little black dot for a nose.

An Oak-apple Robin, or an Acorn Robin (Fig. 53). Fasten two oak-apples together by

pushing a pin through the smaller into the larger one. A large rose-thorn may be glued on for a beak, and a brown feather stuck into a hole at the back for a tail. The breast is painted red, and the eyes black. The legs are made from bent hairpins or wire. The feet can be

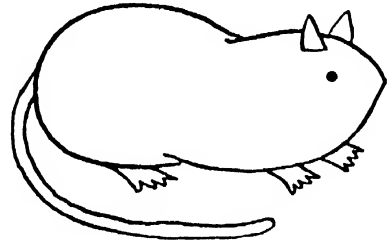


FIG. 52

A Pea-nut Mouse

twisted around a small twig to look as though the bird were perching on it.

The Stork (Fig. 54). His body is made of a large fir cone, his legs and neck are pieces of cane or twigs, his head is a small acorn, his beak may be made of play-wax, or a thorn, glued on. He can stand on a clay pedestal.

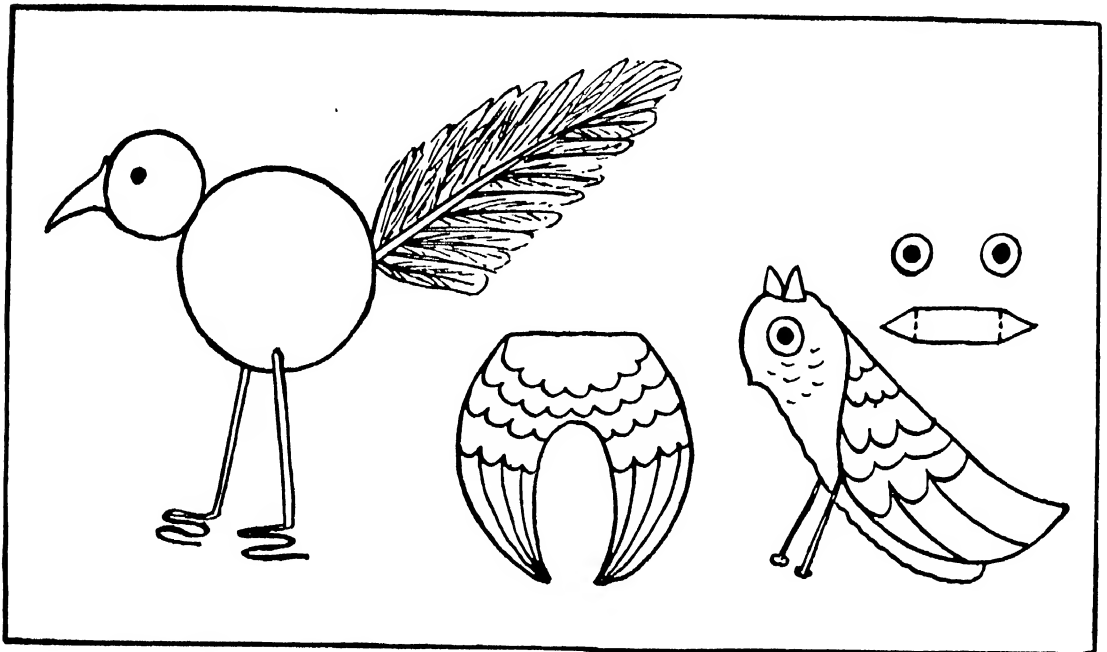


FIG. 53

A Robin and a Pea-nut Owl

A Snake (Fig. 55). This is made from acorn cups. Begin at the head (which is a large acorn with the shell cut to make eyes and mouth), and thread through the mouth. Tie a knot to keep the thread from slipping through, but leave a fairly long end for a tongue. Then thread on the biggest acorn cups, gradually choosing smaller and smaller ones, until the tail is

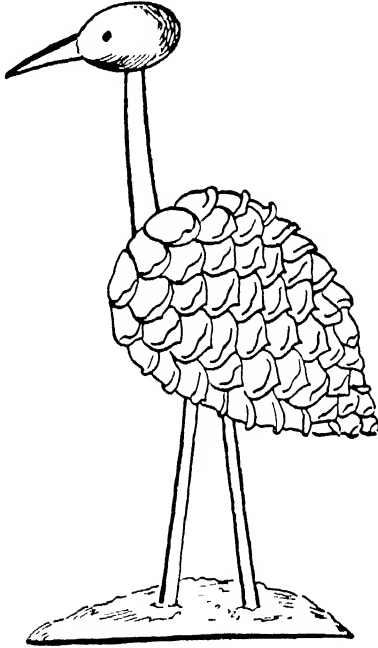


FIG. 54

Stork made from a Fir Cone

reached, where it should be finished off with a tassel.

An Owl (Fig. 53) This is made from a peanut. Notice how the ears, wings, and eyes are cut from paper. The legs are two pins

These are only a few of the many interesting things that can be made from Nature material. Little ones love collecting acorn cups to make a tea-set for their doll's house. They choose large, flat acorns for saucers, and bowl-shaped ones for cups

From Reeds or Rushes

A rush basket, or cradle, or hammock (Fig. 56 b) will be familiar to most country children.

To make it, lay the rushes parallel to one another, as in Fig. 56 a. Take either a piece of raffia or another rush, fold it in half, and put it round the middle of one of the outer rushes. Cross the two ends, put these under and over the second rush, cross again, and catch round the third rush and so on, as shown in Fig. 56 a, until a line has been woven across the width of the basket. Put in two other lines, one on each side of the middle one, and a little distance away. The cross weaving holds each rush firmly in place.

Gather up the rushes at each end of the basket, and tie them firmly together, as in

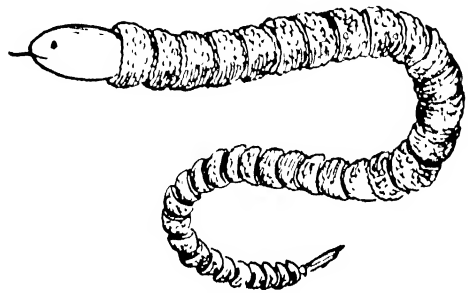


FIG. 55

Acorn Snake

Fig. 56 b Make a handle of twisted or plaited rushes, or raffia.

Interesting Things Made from Feathers

The War Bonnet of the Red Indians. The real head-dress of the Red Indians is made with eagle's feathers. These are fastened in a circle to a cap of buffalo skin

Little children can make a war bonnet for themselves very easily. Take an old felt hat and cut off the brim, as in Fig. 58 a, or make this shape of brown paper, or, simpler still, make a band of brown paper only (Fig. 58 b). Choose some big feathers, and cut a point to each. Make slits in the bonnet, as shown in Fig. 58 c. Thrust the points of the feathers through these slits, and double the points back. Sew, or tie, a bit of red flannel around the base of each feather, as in Fig. 58 d.

If the foundation is made of brown paper, it is sometimes easier to sew the feathers on. When the felt crown or band of paper is surrounded with a circlet of feathers, keep these in place with a thread, drawn through the shafts of the feathers with a needle, as in Fig. 58 *d*.

A Shuttlecock (Fig. 57). This is easily made

with an old cork and some feathers. Choose a large, rather flat cork and file it a good shape. Choose feathers of equal size. Make holes around the edge of the cork with a bradawl, or knitting needle, and glue the feathers in. Paint the cork with some bright colour, by mixing Chinese white with the water-colour chosen

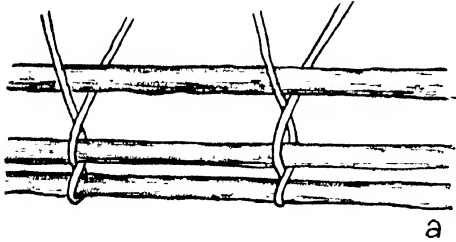


FIG. 56

A Reed Basket

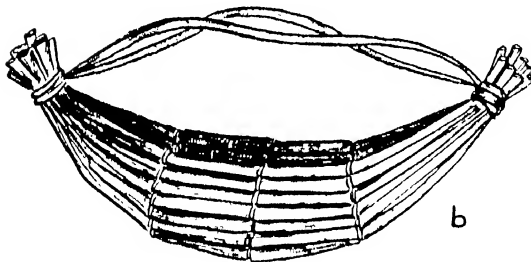


FIG. 57

A Shuttlecock

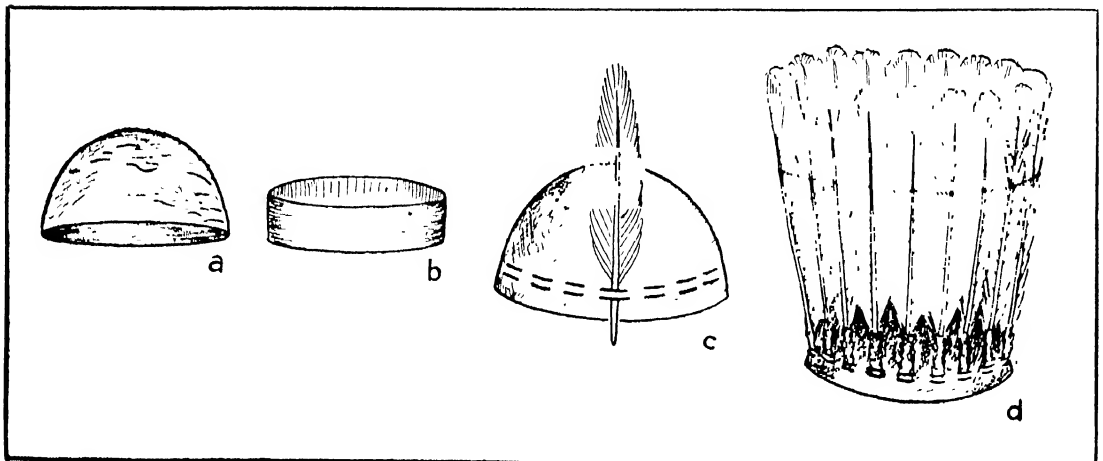


FIG. 58

War Bonnet of the Red Indians

(a) Crown of Felt Hat, (b) Band of Brown Paper, or (c) Slits in Crown

Small shuttlecocks can be made from little corks and three or four little feathers. These are easy for the younger children to make.

Christmas Decorations

(See also pages 277-283)

Materials: Wallpaper, tissue papers in

previous one. Fig. 59 *f* shows this festoon completed. Contrasting colours are effective in this decoration

Cut Paper Festoons (See Fig. 4, page 278)

Light Cover in Paper or Lace. Use a square (4 in. each way) and fold in four, then into triangle. Then cut, parallel to the open edges, from left and from right as shown in Fig. 59 *g*

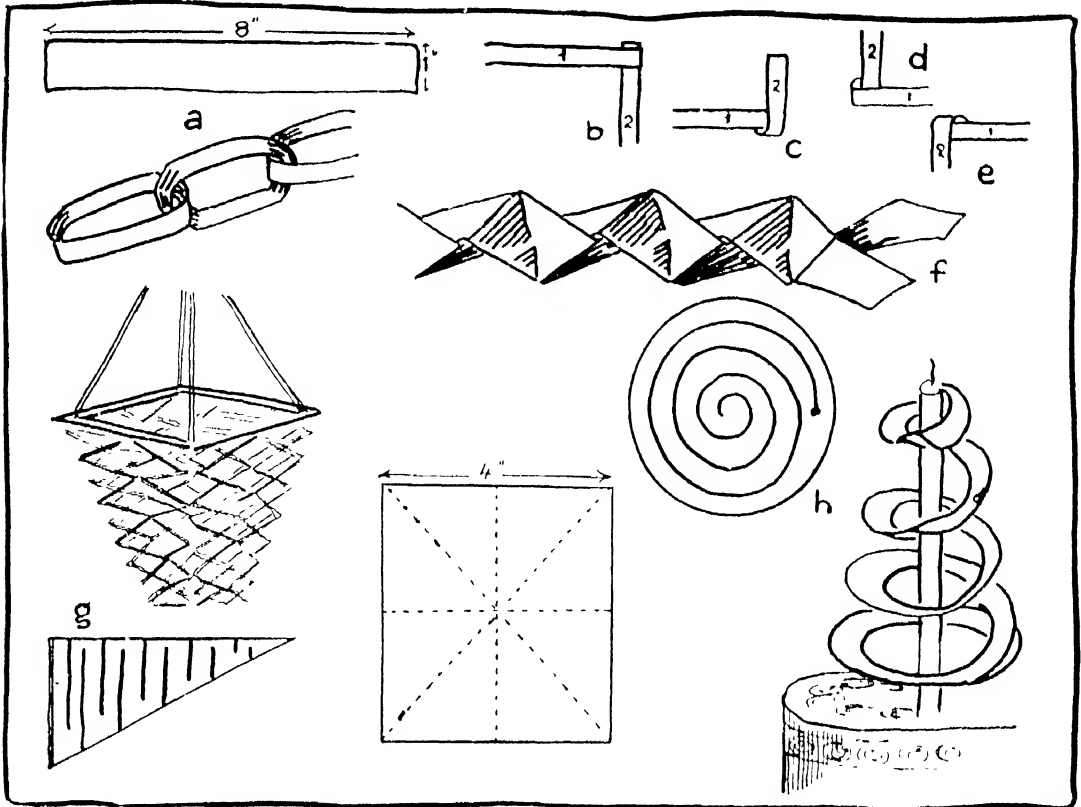


FIG 59

Cut Paper Decorations

colours, brightly coloured posters or magazine covers, brown paper for lantern frames, glue, candles.

Paper Chains. These may be made by the smallest children. "Links" are cut, say 1 in. deep and 8 in. long. These are pasted together to make a chain as in Fig. 59 *a*.

Narrow Festoon. This is made from long strips of crêpe or coloured paper. They are folded as shown in Fig. 59 *b, c, d, e*. When it is necessary to add another strip, paste it to

Open it out carefully. Fasten threads to the four corners and use as an inverted bowl over electric light.

A Lantern (See Fig. 5, page 278)

Fairy Trees. Bright green paper, used with small candles, as a cake decoration, makes Fairy Trees. The spiral is cut from a circle as shown in Fig. 59 *h*. The candle wick is pulled through the top or centre of the spiral, when the paper drops down to form a tree outline. Note the solid circle at the base. (Of course, the trees

must be removed before the candles are lit, or they may be allowed to fall to the base of the candle.)

Book-Making

This is described on pages 356, 357, Figs. 1 and 2; and on page 217.

Albums for Picture Post Cards, Cigarette Cards, and Photographs. The problem is to have an album with double thickness at the hinge of the book, so that when full the book will close normally. Fig. 60 *a* and *b* shows a successful way of doing this for small albums. A sheet of dark strong paper is divided into pieces of the

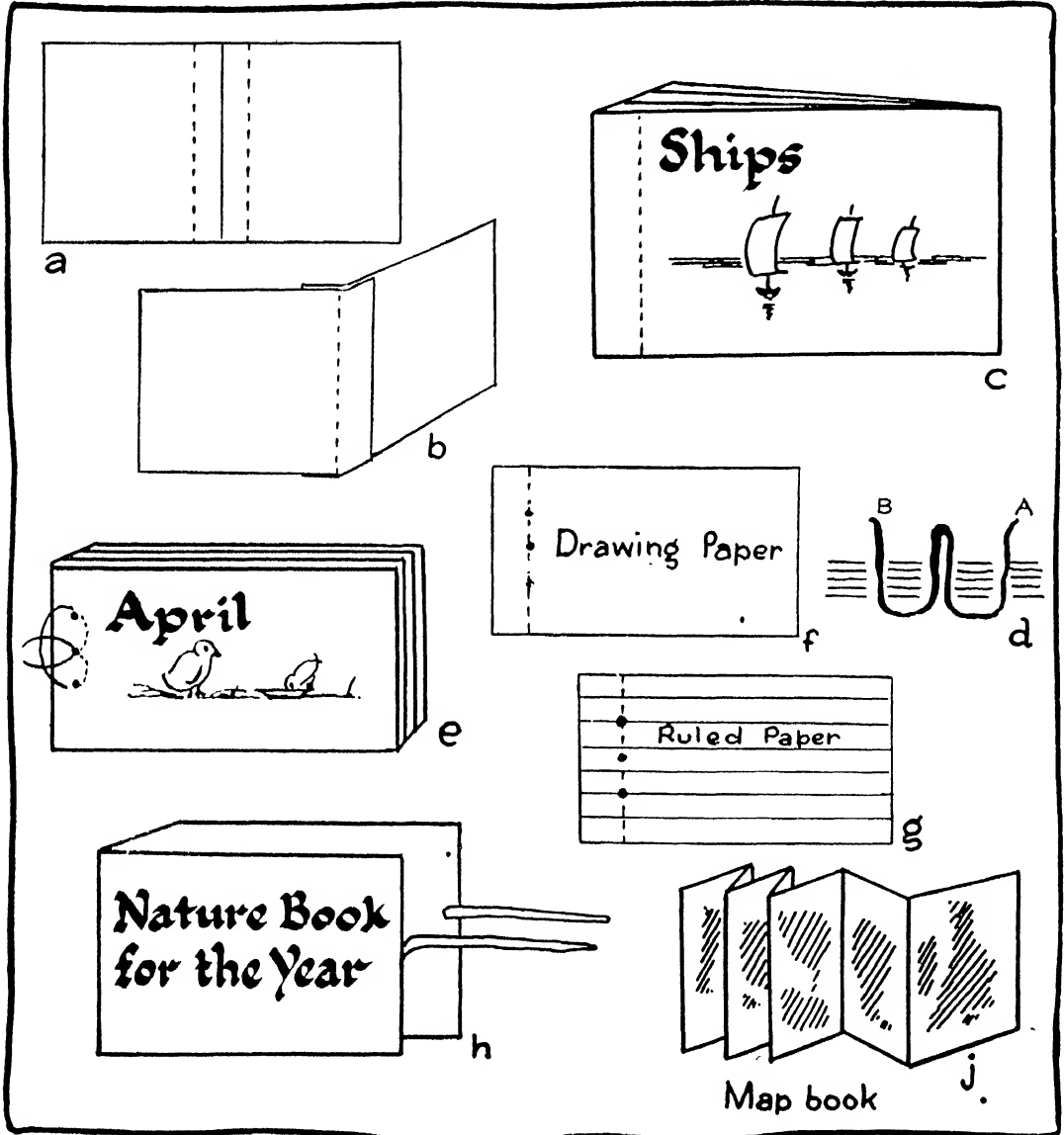


FIG. 60

Various Kinds of Books

required size, and a $\frac{1}{2}$ in. margin is folded down each sheet. These are then pasted one to the other thus: the flap of page 1 is sealed to page 2, the flap of page 2 to page 3, and so on, building up a book of the required size. Fig. 60 c shows a cover decorated with free-cut ships.

A Folder or Envelope. Stiff brown wrapping or cartridge paper makes this useful container,

sheets for drawing and sheets ruled for writing are required together. Fig. 60 f, g, d, and e, shows such a booklet compiled for Nature Notes. One booklet is made for each month, and a set of stout covers to contain the ten books of the school year make up this project.

Folding Map Book. This is a useful type of book for snap photos, or for pasting in the

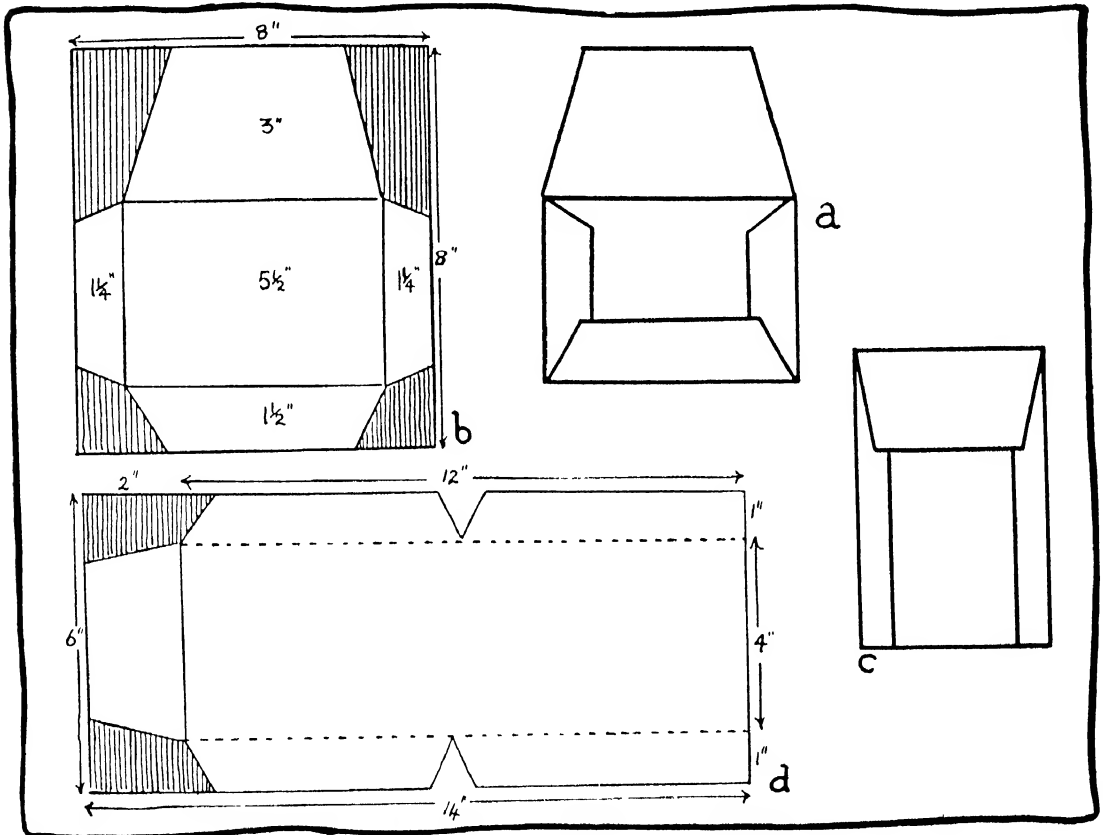


FIG. 61

Two Methods of Making a Portfolio

which may be sealed up the sides as an envelope, or left open. The size depends on what the envelope is to contain. Fig. 61 b shows how to make it

Portfolio. Fig. 61 d shows clearly how to make this of stiff paper or thin cardboard. Such a portfolio would be useful for children's drawings or design sheets. The children should decorate this as they wish.

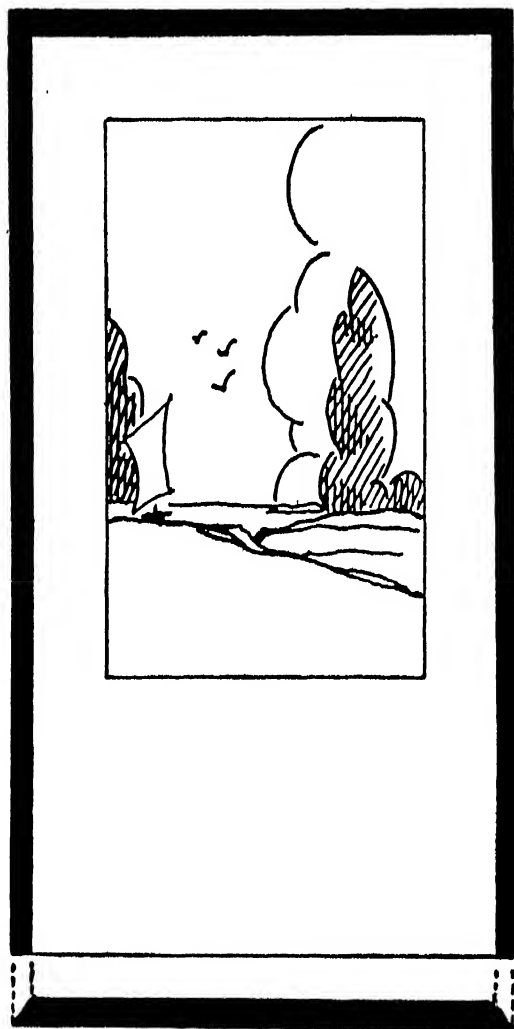
Interleaved Booklets. These are useful where

serial adventures of some favourites in children's papers. Such books when finished make excellent gifts to a hospital. Strips of paper are joined together and folded fan-wise. A flap at the end is bent to make a cover (Fig. 60 j).

Holiday Books

The books required by children for drawing, sketching; for pressing leaves, flowers, or seaweed; for holding photos or post card souvenirs

of a holiday, or scraps arranged on a stormy afternoon at Christmas time, may be made by the young people themselves. They may be



mitre the corners of short ends

FIG. 62

*Simple Method of Mounting Picture
and Binding the Edge*

prepared in the Handicraft period towards the end of the term, when each child has decided what he is going to "collect."

Picture Mounting

A child may want to decorate a playroom, or mount prints to use as calendars or other gifts. Only the very simplest forms of mounting or binding are suitable for small children.

If the pictures are to be mounted singly, care must be taken to have a piece of mounting paper suitable in texture and colour, and to have it cut to a size which will give a border of pleasing proportion to the picture.

Binding a Picture. Edges of mounted prints, photographs, etc., quickly become torn if they are not protected. If children can bind such pictures, they are preparing the way for *passe-partout* framing with glass and backing and bending strips. The method is the same, only the glass, etc., makes the manipulation of the work more difficult. To bind an oblong of cardboard, four strips of binding cloth are needed of the required lengths. Fold all four lengthwise in half, as sketch. Arrange the two long strips to leave 1 in. at either end against the two long sides. Fit them over as if the binding were already finished. Lay the picture face upwards. Lift up the binding strip which is covering the face edge, moisten it, and seal it down. Moisten and seal down the opposite edge.

Turn the picture on its face and open out the unglued lengths of strip. Cut across the corners as in Fig. 62. These should be folded in position first, then opened out, moistened and refitted. The two opposite long sides are now bound.

Take the shorter strips and fit them similarly on the short sides. Cut across the corners at each end, as shown, to give a mitred finish.

PUPPETS

Introduction

NOTHING is more satisfying to small children—and big ones too—than the making of a puppet show, for it combines all the arts on so small a scale that they are exactly suited to childhood. Puppetry, the oldest form of dramatic art, is taking on a new lease of life in the schools of to-day. In this age of factory-made mechanical toys when children think of electric motors and steam trains, the puppet—a hand-made thing of wood or rags—is endearing itself to thousands of modern children. It is the love of the human as opposed to the mechanical, a return from Mechanism to Man.

To young children especially this love of the doll is a vital thing and essentially part of its education; and the puppet is a doll that can become imbued with the child's own life—a living doll. It can be made to dance and talk and move as the child's mind directs. It is a super-doll, a doll more interesting and more full of possibilities than the ordinary doll; and because it is the natural toy of childhood, expressing the child's will in action, it is becoming part of the equipment of the schools of to-day.

It is to be expected that the teacher, already burdened with many "subjects" and "projects" should ask of what *practical* value is this new idea of puppetry. That the children enjoy it is obvious, but to what useful ends can it be applied? And is the effort and expense of starting a theatre worth while? These are pertinent questions, and perhaps the true educational advantages can best be shown by an account of the writer's personal experience in her own childhood.

A Personal Recollection

In the remote Yorkshire village where she spent her childhood a Punch and Judy Show was a rare event, and she was about seven years

old when she saw the first show. Something in the aliveness and jollity of the puppets caught her fancy, and she and her brother determined to make a show of their own—not only with Punch and Judy, but with Cinderella, Red Riding Hood and all the well-known characters



FIG. 1
Puppets

of the fairy tales. In those days pocket-money was scarce and the two children could count on only twopence a week between them. So with one week's money as capital they proceeded to start a show.

The booth was the first problem. In the back-yard of the village stores were some tall empty orange-boxes, and they approached the shopman with the offer of one penny for an empty box. To their great delight he gave one for nothing! To this day the writer recalls the glee with which the empty box was dragged home, the week's money still intact, and the task started of beautifying it and turning it into a booth. Pink and blue art muslin draped its front and to those childish eyes it soon appeared a lovely thing, no crude wooden box but a thing of beauty and enchantment.

Wooden "Dutch" dolls were sold in the

village at two a penny. Four were bought and after ruthless dismemberment were dressed in loose robes with holes at the side through which fingers could pass. Not knowing the proper way to hold a puppet, the doll's body was grasped with the hand and thumbs and fingers used for the movements of the "arms." As all the dolls' faces were alike—two bright red cheeks, round black eyes and a red line for a mouth—a new coat of paint was put on to beautify these too; and gradually week by week were produced princesses and witches, beggars and heroes, and all the characters of the story books.

The "plays" were all improvisations and grew and developed as naturally as plants or any other natural growth. They were never written down, but every Saturday afternoon the children of the neighbourhood thronged to the garden to see the show. The audience was expected to pay—a ha'penny was the entrance money—but as money was scarce in that circle, pins or scraps or broken toys were accepted so that nobody was kept out. Thus the village went to the Puppets instead of the Pictures.

Looking back on this childish effort the writer realizes how admirably but unconsciously the children were "educating" themselves. Native ingenuity was sharpened by the confronting of one problem after another, all of which had to be solved so that the show should succeed. The "scenery" had to be painted so that the child's natural love of painting and drawing was fostered. Costumes had to be designed, thought out and made. The improvised plays gradually settled into a form and the dramatic instincts were satisfied. As the voices of the various characters were imitated and their deeds imaginatively enacted, so the children lived again the lives of heroes and maidens, of witches and queens. And there is no doubt that diction unconsciously improved through the children being forced to speak clearly and distinctly for the sake of the alertly critical audience "in front." In fact, all unconsciously, the children were educating themselves in the best way of all, through sheer love of conceiving and creating things of beauty and delight.

An enjoyable experience for all concerned and one which the writer will not forget.

An Incentive to the Arts

Now with this childish experience long past the writer realizes how useful such a project could be in the hands of a sympathetic and practical teacher. Children take a joy in making their own toys and amusements, so that instead of relying upon external aids, often mechanical, they are self-reliant and creative; and in the art of puppetry all the arts combine to produce the required effect. The child can make his own theatre, write his own plays, paint his own scenery, make his own company of actors and rely upon his own ingenuity and resource for his amusement. The mainspring is in himself and not in some extraneous mechanism, and so the puppet show is the ideal medium for the training of hand and eye and brain. The true puppeteer does not rely upon others for his material—he makes as much as possible himself; and so must be an all-round artist, a little of a painter, a poet, a sculptor and, above all, a good craftsman.

All this sounds very difficult and beyond the scope of the ordinary Infants' School. But the small scale of the puppet stage lessens the difficulty of the task. The scale is so small that children are at home in it. It is the natural scale for childhood. The scenes are so small, the clothes so tiny, that they can be made without too much effort and tedium.

Children's Creative Instinct

So the puppet stage satisfies that ever-living desire to make and create that is in the very hearts of all children. It fulfils their desire for building and constructing, planning and designing, putting into material form the dreams fostered by imagination; and so encourages the creative instinct in all its forms. As every teacher knows, much "naughtiness" and "temper" is only the result of boredom—the lack of directed activity. Give a child something to create and he will soon be gravely busy over it, happy and "good."

Lastly, it is amusing and interesting in itself. Endless fun can be obtained from the working of a show, and its variety seems never-ending. It attracts attention where all else fails, and

even at the end of a tiring day the children revive at the sight of the puppets performing their little antics. Of its actual use in teaching there will be more later; but for its fun and liveness alone it is well worth while.

Practical Considerations

If, then, it is decided to start a show, the following questions inevitably present themselves. Is it possible for the ordinary teacher to start and run a show? Will it take up too much of the ordinary working day? Does it require special training? Is it difficult or easy? How does one start, and having started, how does one go on? Is it expensive? And at what age in the child's life can the show be useful in the ordinary school? Above all, what kinds of puppets are best to start with and what is the best method of beginning?

Different Kinds of Puppets

There are three types of puppets which can be useful in the Infants' or Nursery School—

1. *Marionettes*, which are full-length jointed figures controlled by strings or rods.

2. *Glove Puppets* which are worn on the hands in the same way as the Punch and Judy figures.

3. *Cut-out Figures* which are pushed on to the stage by means of rods.

Marionettes are difficult to manipulate properly. When well manipulated they have a beauty unequalled by any other form of the art. The stiff, stylized lines of the figures, moving into characteristic attitudes, attain great significance and express a high degree of beauty. Indeed, many famous dramatic artists prefer them to the living actor. They are, to the living actor, what the mask is to the living face—a synthesis of significant forms embodying the idea. As Bernard Shaw has said—

"I always hold up the wooden actors as instructive object lessons to our flesh and blood players. The wooden ones, though stiff and continually glaring at you with the same overcharged expression, yet move you as only the most experienced living actors can. What really affects us in the theatre is not the muscular activities of the performers but the feelings they awaken in us by their aspect."

But it is impossible in the Infants' School to attain this high degree of art. The infants' marionettes are altogether different from art marionettes, and, simple though they are, the strings are liable to become tangled and confused. Even the most ordinary movements such as walking or sitting down, are difficult to control properly, so that though the marionette has a place in the Infants' School, it is not, in the writer's opinion, the most satisfactory type of puppet with which to begin.

Glove Puppets are comparatively easy to make and to manipulate. Indeed, children of three years use them easily. They require a simpler stage than the full-length marionette and, above all, are tremendously alive. Their range of action is, in some ways, much wider and they can perform quite complicated actions with ease. In the writer's opinion, therefore, they are more suitable for the Infants' School than the more difficult marionette.

Cut-out Figures are comparatively uninteresting in their immobility, yet they are well adapted for Infant work. They are easy to make, and lend themselves to the kind of painting and cutting out which is usual in Infants' Schools everywhere. They are also easy to use, the figure being merely pushed on to the stage when the character "enters." Immobile though they are, the children's imagination invests them with great interest, and easily fills in the gaps left by their shortcomings. The miniature theatres—Penny Plan and Twopence Coloured—have been popular for generations of children and are still sold in quantities. Their interest lies largely in the scenic and lighting effects that are possible within the limits of their tiny stage. But they lack "life," and children are apt to tire of them after a time.

As all three types of puppets can be used in the Infants' and Nursery Schools this article will deal with all, but as the glove puppet is, in the writer's opinion, by far the most suitable, this will be treated first and in the greatest detail.

GLOVE PUPPETS

Their Possibilities

Glove puppets may be used in the Nursery and Infants' Schools without a theatre, but

simply on the hand, to give interest and point to a story. Used in this way, the puppet becomes a living illustration, far more thrilling



FIG. 2

Method of holding the puppets

than any drawing in a book. These puppet illustrations can actually move and perform the actions told in the tale. For instance, Red Riding Hood, listening to her mother's advice, becomes a living being. Without any theatre or stage she can nod understandingly, fetch the little basket and pack it with butter, cake, eggs and sugar and put a cloth over all. She can kiss her mother good-bye and wave to her as she goes away into the wood. Without stage, without scenery, lighting or any accessories, the scene lives in the imagination of the children. Such a story can be enacted either by the teacher herself or by a child, and so amazingly

alive appear the figures that it often happens that children think they are real human beings. Even without a theatre the progress of the story is often held up while members of the class hold conversation with the puppets. In one school in Windsor, the Nursery Class firmly believe their puppets are tiny humans and bring them little presents of sweets and flowers.

It is easy to see how the teacher can take advantage of the child's imagination in actual teaching. If the attention of the class flags, it requires only a word from the puppets to bring the class to life. A puppet monkey, peeping over the top of the blackboard is quite enough to attract attention; and when he takes hold of teacher's chalk and begins to do a little sum upon the blackboard, there are squeals of delight. Woe betide him if he makes a mistake! The children draw his attention to it at once. He can also fetch bricks or other objects, count them, add to them, subtract, build up easy words and do many other interesting tricks that hold and keep the children's alert attention. Much useful teaching can be done in this way. In the writer's own experience, the children take the puppet-teacher so seriously that on one occasion a child not only gave him the correct answer but respectfully called him "Sir" to the great amusement of the school staff.

Method of Holding the Puppets

By far the best way, in spite of advice to the contrary, is to put the first, or index, finger into the head, the thumb into one "arm" and the second finger into the other. The remaining two fingers should be doubled up in the palm of the hand and kept as flat and unobtrusive as possible (see Fig. 2)

As soon as the puppet is properly placed upon the hand it seems to become alive of its own accord. The smallest child can easily make it clap hands, wave, bow and perform other simple actions. Encourage the children to practice slow controlled movements as well as quick, jerky ones.

Many highly strung children learn control through careful manipulation of their puppets, and it is also interesting to note that stammerers forget to stammer when using glove puppets.



FIG. 3

A simple theatre and puppets

The Glove Puppet Theatre

The life-like appearance and naturalness of glove puppets are much enhanced if they possess

a theatre. The theatre hides the manipulator so that the illusion is complete and, though it is not absolutely necessary, a small theatre is desirable.

The glove puppet theatre consists essentially of a proscenium opening through which the players can appear. There is no floor, as in the marionette or cut-out figure stage; but there should be a small playing shelf or stage as in the Punch and Judy booth. The proscenium opening can be cut out of a big cardboard box and the children can help in making a primitive theatre such as this. Another primitive theatre can be made out of a clothes horse, the puppets appearing through one of the openings, the rest being covered with curtains to hide the performers. The writer knows one ingenious teacher who used an old-fashioned easel for her theatre, the blackboard ledge acting as the stage.

But naturally a well-designed theatre is desirable and the illusion of reality is far more complete when one is used.

Glove puppet theatres are of two kinds, those that stand on the table and those that stand on the ground as does the Punch and Judy booth.

The Table Theatre

A table theatre can be made of plywood, and such a theatre is quite strong enough for ordinary school purposes. The proscenium

opening should not be smaller than 18 in. by 15 in., and a larger opening is better. The whole breadth of the structure should not exceed a yard, as even a yard's stretch is rather long for little arms. Fig. 3 shows a typical table theatre designed and carried out by the writer. In this the proscenium opening measures 24 in. by 14 in., and the side windows, while not being essential, are useful dramatically. Out of them puppets can pop their heads, call to one another and generally create fun and jollity. They can also be used for house windows, as is shown in the following verses which make a suitable item for this type of theatre.

THE GALLANT SAILOR (TRADITIONAL)

*There was a gallant sailor
Who sailed across the main,
He sailed the wide world over
And then came home again.*

*He waited in the garden.
He cried "Oh Polly dear
Come you to your window
And see what I've got here!"*

*"I've brought you a little crocodile,
I've brought you a little bear,
I've brought you a little nigger boy
With black woolly hair!"*

*She came to the window.
She cried "Oh, mercy me!
Get you gone you sailor man,
Get you back to sea!"*

When using a table theatre, the performers sit at the table behind the theatre, which should be placed as close to them as possible to prevent having to lean over the table in an awkward position. There should be room for at least two children behind the scenes, so that four puppets can appear upon the stage together if necessary. The performers put their elbows upon the table and hold up the puppets so that they appear through the proscenium opening. The children should be seated in a perfectly comfortable position, as any tiredness or crampedness is bad for both children and performance. Because a

table theatre is less tiring than a large booth, it is more suitable for young children.

When manipulating the puppets in the theatre, the children should try to keep the puppet as upright as possible. It should not suddenly pop up out of the centre, but should be put up behind the ends of the theatre and then appear to walk on. All children, and grown-ups too, begin by

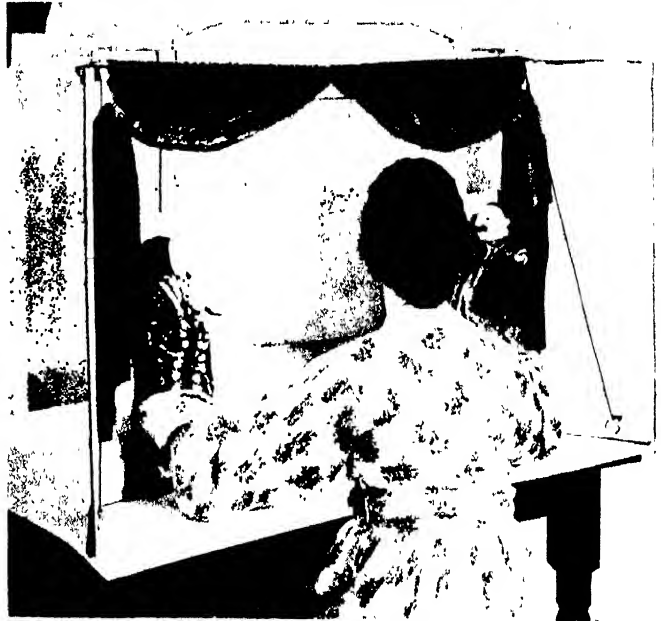


FIG. 4. Back of the theatre

leaning the puppets against the front of the theatre and this should be avoided.

In this type of theatre, as in the large booth, the performers are hidden by a cloth hung at the back of the theatre. This back-cloth must stretch the full width of the theatre, and should hang sufficiently low so that its hem is not seen by the audience. It should not, however, be so low that it interferes with the arms of the performers. As the children must be able to see through this back-cloth in order to see what the puppets are doing (and this is essential to a good show) the material chosen should be rather thin, and no light must be *behind* the theatre. If light is allowed behind, the performers can be seen through the back-cloth. All the light must be in front so that the dolls can be seen easily by their manipulators.

Later in this article a more detailed account of the nature of the back-cloth will be given. It can be of plain material (cotton crepe is the best), or it can be made into an interesting scenic design.

Essentially its object is to hide the performers from view and so create the illusion of life in the dolls themselves.

Large Booth

This consists of a wooden framework standing on the floor, inside which the performers can stand. Its proscenium opening can be surrounded either with painted wood or fabric pelmets, and the main body of the booth should be covered with curtains. The frontage should be about three feet, and the height from the floor to the stage should be about four feet for small children. A good proportion for the proscenium opening is two feet eight inches across and two feet high. If the booth is to be used in a very large hall, it can be built higher and a box placed inside so that the children are high enough to reach the stage.

Fig. 5 shows a very light framework of wood and aluminium designed by the writer for her own travelling show. As lightness and portability were first considerations, this booth was made from very light rods of aluminium which fit into standard supports. It is put together on the lines of a child's building toy, and afterwards covered with light silk curtains and pelmets. A rich, deep, colour scheme was chosen so that the puppets should show up against it. Bright gaudy colour schemes often take away from the interest of the dolls themselves, though children rather like a gayly coloured booth.

Fig. 6 shows the tall booth in action, one child holding the two characters on the stage. The colour scheme here is deep blue and dull orange, colours that please but do not take too much attention from the players.

Inside the booth there should be fixed a Property Shelf, to hold properties and dolls and to form a support for the elbows of the performers. This shelf should have a narrow beading along the edges to prevent the properties rolling off. If the theatre is strongly constructed, rows of hooks inside are useful. From them

puppets can be hung head downwards suspended by a ring sewn on the back hem of the "glove." Thus the puppets are ready if it is necessary to make a quick change of character. In school, however, this difficulty need not arise as it does

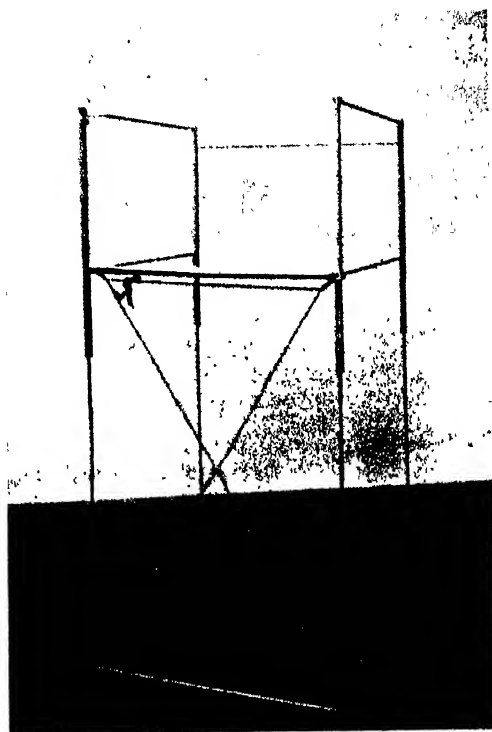


FIG. 5

The framework of the booth

with a one-man show. For in the classroom the puppet-show takes the form of group work, and there are plenty of manipulators ready to use the characters when needed.

It is essential to a good show to have everything neat and orderly behind the scenes. To this end each child in the group should be made responsible in some way: one for the properties, another for the dolls and for the proper working of the curtains, and so on. In this way the work can be apportioned and everyone can take a pride in the responsibility of his task. To be Property Master or Wardrobe Mistress is a great honour and eagerly competed for. So each child feels at the same time happily self-expressive and yet a harmonious part of the community.

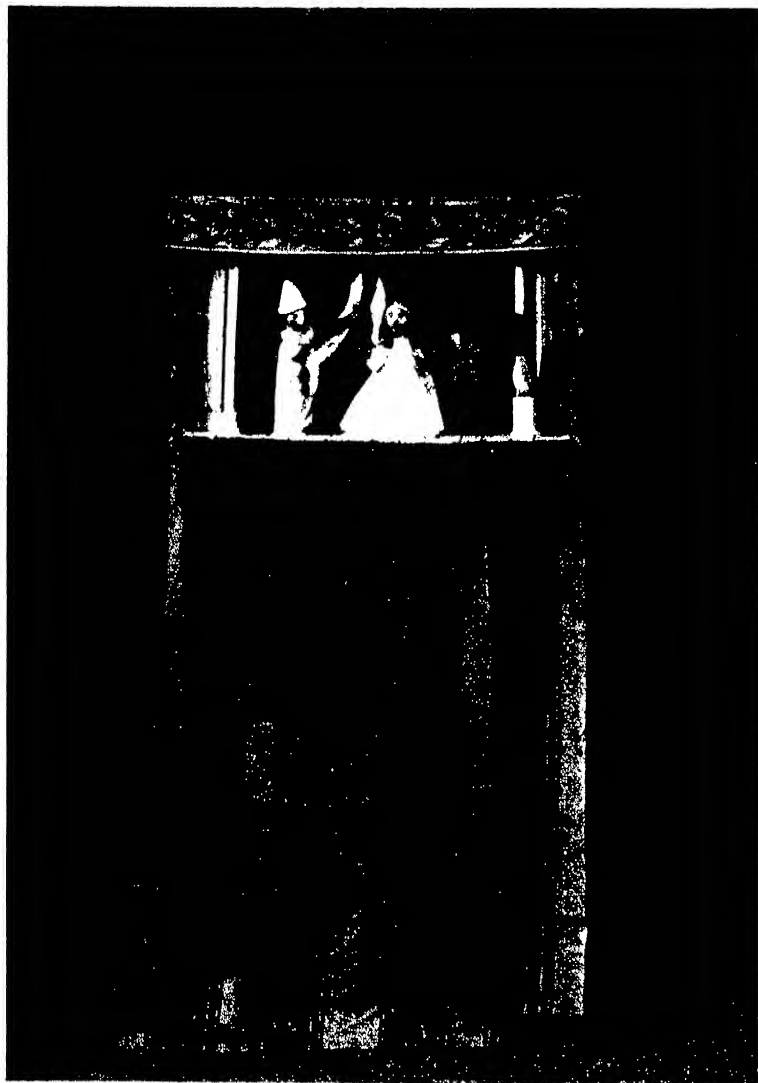


FIG. 6

The booth in action

Curtains

Curtains can be suspended on either a rod or a cord. If the former, right-angled cup-hooks must be screwed into the ends, and holes made in the theatre wings, to receive them. The same kind of rod can be used for the back-cloth.

Curtains are best made of softly falling material that does not hang stiffly, but in pleasant folds. A rich

colour is good—crimson or deep blue or some harmonious combination of colours. Leaden weights sewn into the bottom hems are useful, as the curtains hang very much better if weighted in this way.

The curtains may be made to part from the centre and move horizontally to the ends of the stage, where they hang in straight folds; or they may part in the centre and form loops at each side. If the first is desired, cords should be threaded through the top hems as in Fig. 7. Two colours are chosen—say red and green. Take two yards of each colour, cut each length in two equal parts, and knot a yard of red to a yard of blue and vice versa. Thread these knotted lengths through the curtains so that the knots come in the centre. Stitch one knot on to one curtain and the other knot on to the other. Then it will be found that the two green ends open the curtains while the two red ends close them. Different shaped beads or rings may be attached to the ends so that even in the

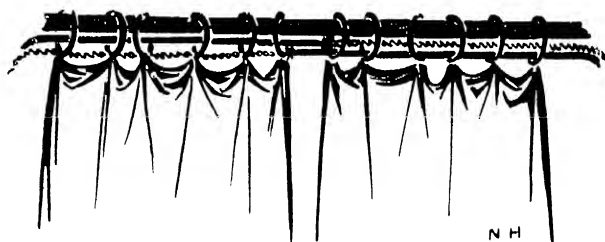


FIG. 7

First method of controlling curtains

semi-darkness the curtain controller can *feel* which is the string to pull.

Fig. 8 shows the second method of controlling the curtains. The diagram shows the back of the curtains. Rings are sewn in a diagonal line,

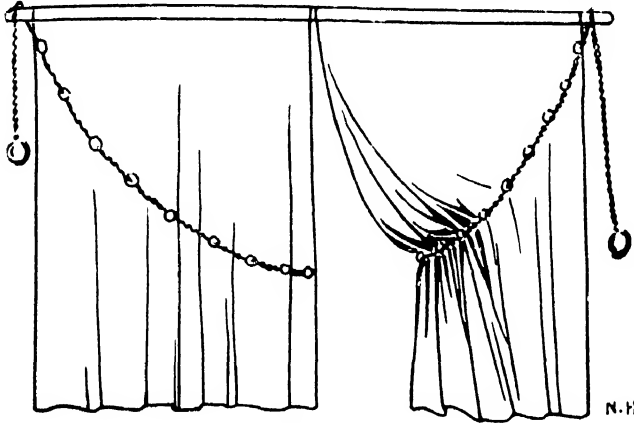


FIG 8

Second method of controlling curtains

a cord is passed through them and fastened to the lowest. When this cord is pulled it gathers all the rings together and so loops up the curtain. To take the strain from the top ring, pass the cord over the rod, or else through a small eyelet-hole screwed into the theatre.

If this method is used there should be curtain rings sewn on to the ends of the cords, and a small nail placed inside the theatre. These rings can then be caught on the nail when the curtains are up, otherwise their weight brings them down again at once.

The children love decorating both theatre and curtains, the former with painted designs and the latter with decorative appliquéd motifs or embroidery. Suitable designs can first be attempted in the painting lesson, and the final choice can be made by the tactful teacher.

Back-cloths

As has been written earlier, back-cloths must be made of thin material, so that they can be seen through when held up to the light. At first

plain materials may be used—black for general occasions, green for a wood, brown for autumn, and so on. Then slight variations may add interest. A back-cloth may have light blue in the upper half and dark blue in the lower, and so suggest the sea. Gradually pictures can be made by pieces of material joined together. These efforts are allied to the appliqué work that is now general in Infants' Schools—work done in coloured paper and in textile materials. If, for instance, a wood is required for a Red Riding Hood play, the children would start with blue paper for the sky, green could then be placed in the lower part of the picture, and brown trunks of trees cut out and placed here and there to form the wood. The idea of perspective could be introduced by making the distant trees smaller and also a fainter tone of colour than those in the fore-

ground. This might lead to a talk on colour and how objects seem to change their colour as light falls on them differently or when they are far away. Hills in the distance would be

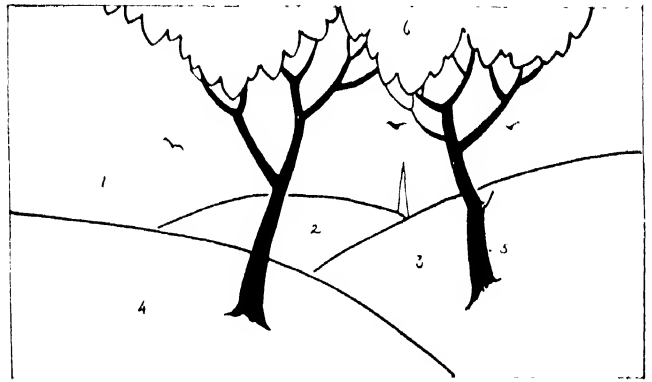


FIG. 9

Simple design

made of blue-grey fabric, while those nearer would be green or brown.

Gradually the scene is built up in coloured paper, and when it has to be enlarged to meet the required size of the finished fabric back-cloth, there are several little multiplication sums and calculations waiting for the class's consideration.

Fig. 9 shows the kind of simple design most effective when carried out in coloured fabric. In this design a grey hill is placed upon a blue sky; a nearer one in fawn is then placed in position; then a green one in the foreground. Brown trunks of trees are cut out of fairly thick material and placed in position. Finally, dark green foliage is cut out and sewn along the top of the picture. A wide hem is made along the top so that the rod can easily be slotted through. Any double thickness is cut away from the back and the scenic back-cloth is complete.

Children delight in cutting out little flowers and leaves in coloured felt, and these can be stuck or sewn on to the scene.

The designing of these back-cloths is an excellent method of introducing to the child's mind a first idea of pictorial composition; for the various masses must be grouped together to form a harmonious whole. Out of this effort comes a perception of balance and proportion, the principles underlying composition in all the arts.

If desired, the scenic effect can be improved by the addition of painted strips of cardboard or thick paper pinned at each side of the stage opening. These side pieces should be painted or crayoned and then cut out, and the tops should be strengthened with a strip of passe-partout. If they are used in conjunction with a scenic back-cloth, care should be taken to harmonize the colours and forms of both. For instance, a desert scene can be flanked by two palm trees, a street by two gable ends of houses, a seascape by two cliffs.

The Complete Theatre

The theatre, then, with curtains and back-cloth is now complete. The whole of this part of the apparatus can be made by older children, but in the Infants' School the frame of the wooden theatre must be either bought or made by the teacher herself. The children can help. They can design the decoration, sew the curtains and make woollen tassels for them, design and help to make the back-cloths, but the actual wood work is beyond them. If the teacher decides to build her own theatre she is well advised to make the hinges of linen or strong

calico. Strips of this material, about one and a quarter inches wide, are glued along the edges of the wood and weights are put on to keep the hinge in position. When dry it will be found that the fabric holds the wood together better than any metal hinge. Care must be taken to keep the two edges of the wood very close together or there will be an ugly gap between them when finished. A hinged theatre is more practical than any other as it can be folded up and put away when not in use.

The Puppets

There are many ways of making glove puppets, and usually each teacher uses the method that attracts her most. Speaking generally, one can model the heads in Plasticine, make masks, carve in wood, or use fabric as in making a rag doll. After trying all these various methods the writer has done what most practical teachers do—evolved a method of her own. But before proceeding to this original method, here are the advantages, disadvantages and general procedure of the various ways of making the heads of the dolls.

THE WOODEN HEAD. Carving in wood needs no explanation and is obviously an unsuitable method for infants. For those teachers, however, who wish to experiment, it would be as well to bear in mind the following points—

Choose a soft easy wood. Do not make the heads too large as they are very heavy. Gouge a deep hole in the neck so that the first finger fits it easily. As is implied by the method, make the features prominent and characteristic. Puppets made by this method—which is traditional—are usually exaggerations of type or grotesques.



FIG. 10
Wooden head

THE MODELLED HEAD. This method lends itself to work in Infants' Schools for obvious reasons. A thick cardboard tube about an inch and a half long is stuck half way into a lump of clay or Plasticine. This is then modelled by the

children, who often by accident attain very amusing effects. Thin tissue paper soaked in paste is then laid on piece by piece, until about four layers are attached. When dry, the surface is painted, hair is stuck on, and any required detail added. This method is rather tedious and messy, and the surface of the face coarse and uneven. Dainty or beautiful faces are very difficult to achieve, and only small heads can be made on account of the cost of the modelling material. Also these heads are very heavy, and so more suitable for marionettes than for glove puppets.

The advantages are that children love modelling, and the act of forming the plastic clay into shape is in itself of highly educational value.

MASKS. A variation of the above method is the mask. After a head has been modelled in



FIG. 11
Mask

clay or Plasticine—but without the cardboard tube—the face is well covered with oil or vaseline and thin strips of butter muslin soaked in paste, laid over the face. About four layers are necessary and when thoroughly dry—which takes about two days—the stiffened muslin comes away from the clay in the form of a mask. The Head Mistress of one of the Windsor

Infants' Schools has made excellent masks by this method, but she does not believe they can be made by the children themselves.

The muslin mask can be sewn on to a ball of rags, through which the cardboard tube is pushed. By this method the teacher has the tedious job of making the mask, while the children have the advantage of modelling the face and painting the mask when finished.

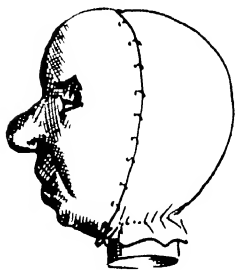


FIG. 12
Mask sewn on to ball
of rags

THE PAPIER MÂCHÉ HEAD. This is too difficult for children in the

Infants' School to attempt, but for the teachers' interest this slight account may be included. The whole head is modelled in clay, Plasticine or wax, and then coated over with grease. Thin layers of tissue paper are then fastened to the head with thin glue. After about two days these will be dry, and the "head" can be divided into two by being cut with a sharp knife from the side of the neck, over the top of the head and down to the other side of the neck. The two halves—back and front—can then be detached and the inside clay or wax used again for another head. The



FIG. 13
Papier mâché head

The two halves of papier mâché are now joined together by means of strips of paper glued on. The whole head is then mounted on to a tube and given a coating of a mixture of whitening and glue. When dry it is sand-papered and painted and ready for its "glove."

THE FABRIC HEAD. Heads of fabric are by far the easiest to make, and in many ways the most natural to childhood. A child's natural way of making a doll is to make a rag doll, and puppets made by this method are really "rag-dolls" with character. This is the method chosen by the writer in making her own puppets—and when carefully made very good results can be obtained. Figs. 14 and 15 show a few puppets made by this method, and these are the result of much research into the best fabric for the face and the best material with which to stuff the heads and model the features. After trying linen, muslin, canvas and many kinds of fabric, pure woollen stockinet was found to be by far the best material for the purpose. Stockinet stretches like skin, and the wrong side has precisely the appearance of skin in its matt surface. It takes paint well, and when finished has the soft contours of the living face.

Details of the writer's method are shown in Fig. 16. Each character requires its own specially cut pattern, and after making a few puppets it becomes easy to evolve these face patterns.

First the profile is made; then the back of the head. The face is then sewn to the back of the head and a stockinet bag is thus formed. This sewing is the only part of the work that small children are unable to do, but they can then proceed to stuff this bag and so make a head of it. It can be filled with teased out rags or any other soft material, but by far the best thing to use is wood-wool. This has the advantage of being cheap, clean, and easy to handle. Also if made into a firm egg-shaped ball before being put into the head, it makes a good foundation upon which to model the features. When the wood-wool has been put into the bag, pieces of cotton wadding are pushed up into the nose, cheeks, and chin and the face begins to look modelled. Children of six or seven years can make good puppets by this method, filling out the cheeks for fat, round faces, pinching them in for thin faces, making receding or prominent chins according to their wish; in other words, modelling from within instead of without. When the face is satisfactory the cardboard tube is pushed up into the head and a piece of cotton wound round to keep it in position. It can then be stuck or sewn on—the latter being the better method. As the cardboard is stiff, this had better be done by the teacher if the children are very young. Children of nine can make complete puppets without help by this method, but not infants unless they are exceptionally gifted.

After the roughly modelled head has been mounted on the tube, the eye sockets should be drawn in. Two dots are made with a pencil marking the position of the eyes, and with a long darning needle and strong thread the sockets are drawn inwards. The needle should go in at the back of the neck—not the back of the head as this would spoil its shape—and come out at the pencilled mark. It should then be thrust back again, coming out at the back of the neck. When the thread is drawn tight the eye socket

recedes and the whole face falls into modelling. The brow appears and the ridge of the nose, the cheek bones and the general contours of the face. However roughly modelled the face, the drawing-in of the eye sockets makes a great change, and the face falls into form before one's eyes.

Woollen stockinet has the flexibility of



FIG. 14

Fabric puppets

skin and can be drawn into "winkles" or "frowns" or "dimples" as required. The well-made stockinet face, with its natural tones and matt surface, is almost uncannily life-like. Its contours and lines, being formed as Nature forms the living face, make the head look almost human but, of course, on a reduced scale. For the natural, as opposed to the grotesque, there is nothing so good as the stockinet face.

Stockinet takes paint readily. The general tone should be some shade of beige—pinkish for young faces, pale for old, reddish for men, more delicate for women, dark for Eastern characters, and so on. Chalk or crayon can be used to tint the cheeks, or very thin oil or water paint. The eyes, eyebrows, nostrils and mouth should then be painted with a brush or sewn in coloured wools. Any method that attains a good effect is justifiable, and there is no hard and fast rule. The writer has seen excellent puppets made by children who have crayoned the face, sewn

beads for eyes, embroidered the mouth and used a variety of methods in the same head. The end justifies the means, and so long as the puppet looks well on the stage, that is all that matters.

In one London Infants' School where only one class



FIG. 15

was started with a puppet project, the rest of the school was so envious of their luck that every child made a puppet at home and came with it the next day. There were puppets made of handkerchiefs knotted at the corners, puppets made of wool knitted into a bag and stuffed, puppets made of paper, and even one with a bright green velvet face and red bead eyes—a wondrous product.

As soon as the head is finished, hair, beards, ears, etc., can be sewn on and it is ready for its "glove." One of the great advantages of the fabric puppet is the ease and quickness with which the doll can be finished. A simple puppet can be made in about an hour by one who has become expert at the work, and even the first attempt can easily be finished in two hours, head, glove, and all complete. This means that one may have an idea for a play in the morning, make the puppets in the afternoon and give the performance the same evening, a result obtainable by no other method. The photographs show the variety of characters possible, and the lightness of the fabric heads makes it possible to use the dolls without feeling fatigue. Also a large company of puppets can be carried in one hand, which makes the giving of shows much more easy and less tiring. The writer has often given a "one-man" show carrying a table theatre, three scenic back-cloths, properties and a company of thirty puppets all packed into one case and easily portable. This is a

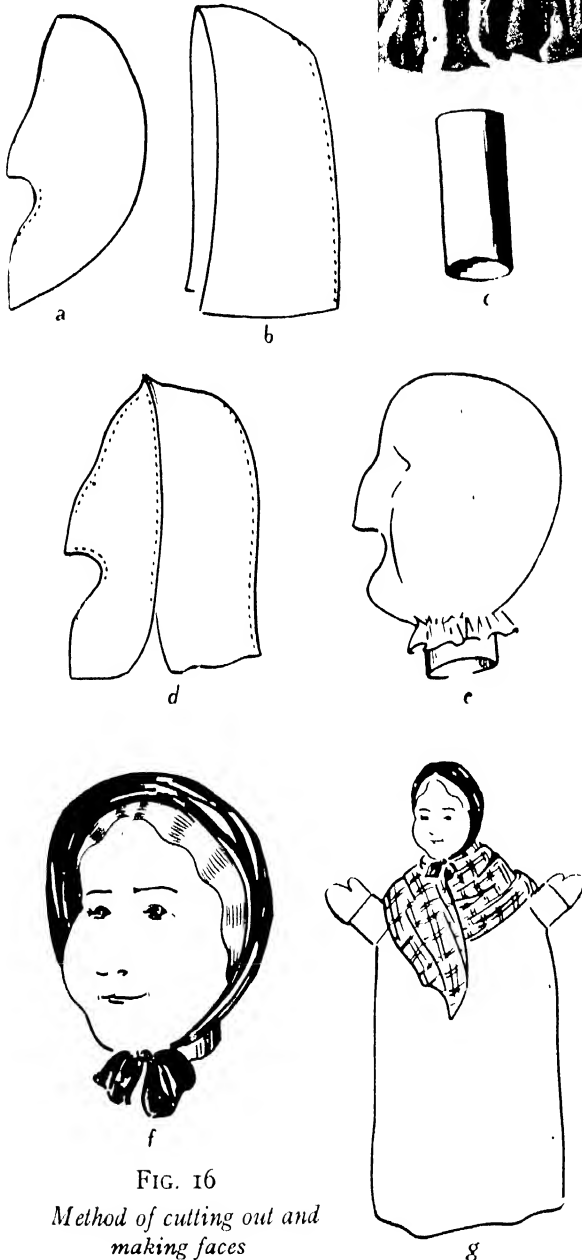


FIG. 16

Method of cutting out and making faces



FIG. 17

Puppets made by ten-year-old children

great asset to a teacher who is ambitious and wants to give a show away from school.

The head is by far the most difficult problem connected with puppet work, and once that is solved the rest becomes easy. There is now the "glove" or lower part of the doll to be considered.

The Puppet Glove

The "glove" consists of the dress with the "hands" sewn in as part of the design. The traditional glove puppets have solid carved wooden or papier mâché hands, but these are not only unsuitable for infant work, but also limit the dramatic action of the puppet. With solid hands, a puppet is unable to pick

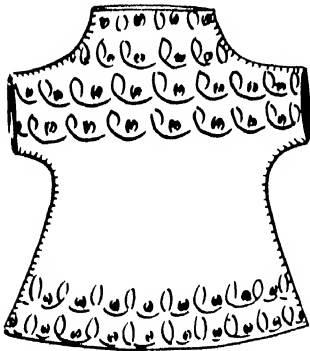


FIG. 18

A puppet glove

handle properties with the same ease as a puppet with fabric hands. In school, therefore, it is both easier and more useful to make the hands of stockinet.

each side of the garment through which the child's thumb and finger could pass. It is true that the audience would see them, but this does not really matter.

A glove made in this way would be simple enough for very young children to make and use. (See Fig. 19.)

The ideal glove which the children can help to make, but cannot make completely, is shown in Fig. 20. Here the stockinet hands are part of the design and are formed by a row of stitching that shapes the thumb and hand. A puppet glove should never be less than 9 in. from neck to hem, and 10 in. is even better. Its width, when folded, should be from $6\frac{1}{4}$ to $7\frac{1}{2}$ in. according to the size of the hand for which it is intended. The pieces that form the sleeves measure $3\frac{1}{2}$ in. \times $1\frac{1}{2}$ in., and the stockinet pieces for the hands also measure $3\frac{1}{2}$ in. \times $1\frac{1}{2}$ in. These sleeve and hand pieces are first joined together and afterwards folded and placed in the "arm-hole." The whole glove should be sewn on the wrong side so that when it is turned inside out all the raw edges are inside.

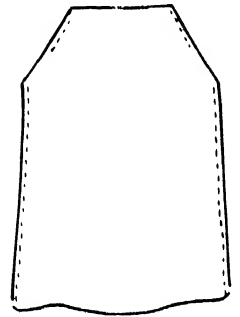


FIG. 19

A simple puppet glove

The writer has seen excellent "gloves" made by children of six years of age. The glove shown in Fig. 18 was made by a six-year-old in a London school, the decoration being printed on the material and the child's own design. It is to be observed that the hands are not part of the costume, as at this age the sewing in of the hand pieces is rather too difficult. The shape of this glove is simply two pieces of fabric cut into the required shape and sewn together round the edges. An even easier method would have been to leave holes at

Fig. 19 shows the fundamental pattern upon which all puppet gloves, however elaborate, are based. Carried out in rich crimson velvet or silk with bands of fur, it becomes the robe of a king, in black with a white collar, the cassock of the priest; in thick brown material with a cowl and girdle, the habit of the monk, and so on. Its possibilities are infinite, and all the puppets shown in the illustrations have been made from this pattern. The variety is obtained by using different materials and adding extras such as the schoolmaster's gown, Granny's shawl, the witch's cloak, gown, apron, and hat. Sometimes a deep flounce is sewn on to the "waist" so forming a full skirt. Columbine has several of these flounces made of white net, and a Victorian lady one of flowered silk. Although the glove puppet possesses no legs the onlooker does not notice this, and the illusion of walking, jumping or dancing is complete. The reason is that the action expressed by the upper part of the puppet is so effective and robust that the absence of legs is not noticed. Part of the art of designing costumes for glove puppets consists of adapting the foundation pattern so that this absence of legs is unnoticed.

Costume Design

Because of the absence of legs it is always as well to choose dresses that do not rely upon the lower part for their interest. Robes and skirts are obviously easier to suggest than trousers, so that the farmer's smock, the policeman's long tunic and the Scotsman's kilt are all easier to carry out than ordinary masculine attire. But even the modern man's coat can be suggested by the addition of lapels, a cravat and buttons, and the absence of trousers is unnoticed.

The designing of appropriate costumes is a good exercise for the drawing and painting lesson, and children delight in the bright ex-

pressive colours that best suit the puppet art. History becomes alive, for many of the dresses of the past are ideal for the puppet stage. Robin Hood's green jacket, with wide hat and sweeping feather, Alfred the Great with kingly robes and a golden crown; young Queen Victoria with smooth hair demurely coiled over her ears, and a wide crinoline floating as she moves. The children delight in studying these old styles, and

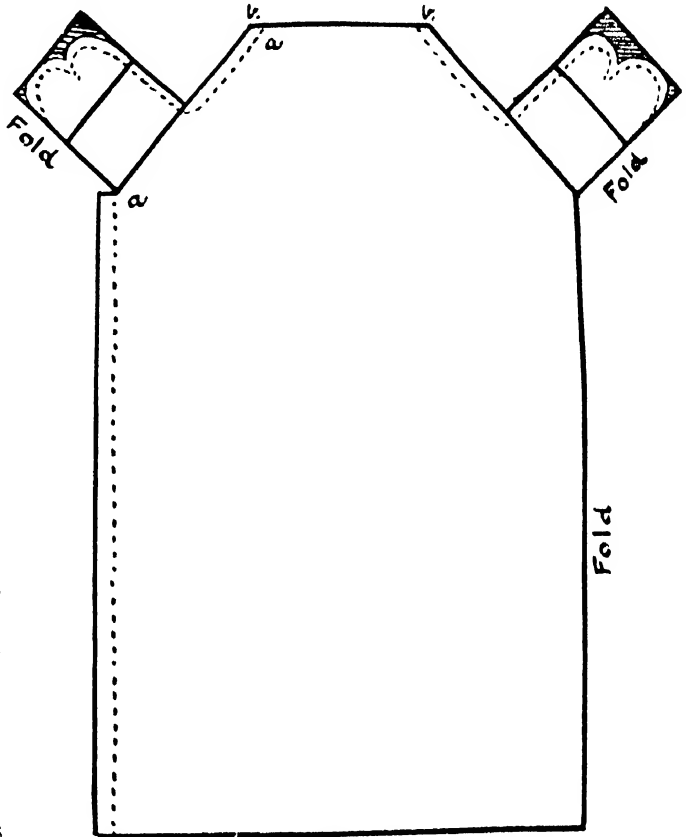


FIG. 20

The ideal glove

a first perception of history comes with such study

The actual sewing, too, can be done by young children without tedium, for there are no long tiresome seams. Everything is on a small scale, and even if the children are too young to make a complete puppet they can help by hemming Granny's shawl or knitting Tommy's scarf.

It can be said with truth that the foundations of a good puppet show is a good rag-bag. The

tiest remnants are useful, from the scrap of fur that adorns the robe of a king, to the spray of artificial flowers that gains new life in the hands of a queen. Scraps that are apparently quite useless—a few inches of lace, an old glove, a leather belt, a tassel, a bit of cord, a spray of small leaves—all are useful for the puppets. Perhaps of all the arts that of the puppet is the cheapest, for it requires no new materials. This factor is of no small value. Not only is it of practical help to schools that have little to spend on "extras," but it is of great educational value also. Gradually the children learn that delight can be drawn out of the scrap-heap and loveliness from the rag-bag, and that out of waste can be wrought things of beauty and romance—queens and knights and heroes and all the beings from the fairy world.

Properties

Just as the rag-bag is valuable for dressing the puppets so is the "rubbish cupboard" for making the properties. Again everything must be on a small scale, and odds and ends that have no obvious use are often ideal when adapted to the puppet stage. The kingly crown is revealed as the top of a Bovril bottle, touched up with red and blue to give it jewelled splendour; the magic chest is an old chocolate box painted to resemble an old clamped chest of treasure; Miss Muffet's spider, terrifyingly large, is revealed as pieces of wire and wool, and so, out of odds and ends emerge the king's sceptre, and the queen's jewels, the lady's fur and the fairy's wand, Robin Hood's bow and arrows and all the fascinating things that puppets use. Here is great scope for handwork. Children who are too young to make puppets themselves, and even too young to sew, can still model little pies and cakes in Plasticine; and with what joy they see their own painted cardboard dishes used by the puppets as they picnic under the trees! Even in the Nursery Class where there are few "occupations" within the scope of the children, the puppet's properties give many opportunities for handwork. The children's ingenuity, too, is quickened by the confronting of problems, and many an ingenious solution of a difficulty has been found by adapting some homely object

and making it serve as one of the puppet properties.

CUT-OUT FIGURES AND MARIONETTES

As the name implies, these are characters cut out of stiff paper or cardboard. They are mounted on a base so that they can stand, and a rod of wire or wood fixed so that they can be pushed on to the stage or suspended from above as is a stringed marionette. Children take great pleasure in drawing, painting, and cutting out these little figures to illustrate their stories, and can even mount them themselves on rectangles of firm cardboard. They are, however, better if wedged into a small block of wood, as the weight of the base prevents them from falling over. When the "character" is supposed to be speaking, the figure is slightly moved about to draw attention to it. By their very nature they cannot perform actions or handle properties and are therefore of very limited scope. Nevertheless children love this miniature theatre, and as a simple illustration to a story it is very delightful. Fig. 21 shows a typical cut-out figure.

The Stage for Cut-out Figures

The stage required for cut-out figures and marionettes is different from that required for glove puppets. The latter has no floor, but a solid stage is required for both cut-out figures and marionettes. A good theatre can be made out of a large flat box—say about 30 in. × 15 in. × 6 in.—turned upside down so that the bottom of the box is 6 in. or so above the table top and forms the stage. Uprights are fixed at each corner, and across the front a rod for curtains. Flexible curtain rods will be found useful for suspending frills that hide the top of the curtains from view.

Curtains or cardboard "scenery" are fastened at the back, and the "characters" are either pushed on from the sides by means of rods (old umbrella spokes are useful for this), or suspended by threads from above. If the latter plan be adopted, the children stand at the back. As this is rather tiring, a bar upon which to lean their arms is desirable. This is called a "bridge." A theatre such as this may be used for either cut-out figures or marionettes, and in some schools

a compromise between the two is attempted. Small dolls or clothes pegs are dressed by the children, and they are suspended from above by a dark thread tied round the neck. These little figures, being three-dimensional, have more

is important. If the figures are too large, no dramatic "atmosphere" is possible. It is well to keep the figures small rather than large, so that they take their true place and perspective against their surroundings. About six inches for



FIG 21
A cut-out figure

possibilities than the two-dimensional cut-outs, but not being properly jointed and threaded cannot be classed as true marionettes.

If only small cut-out figures are used, a small theatre is sufficient, but true marionettes demand more space to be effective.

Mr. Seymour Marks, Secretary of the British Miniature Theatre and Puppet Guild, has made an excellent marionette stage out of two soap boxes, fastened together by means of bolts and fly nuts. Right-angled supports, each a yard high, are fastened at the corners and a five-foot strip of wood across the front upon which a frill is hung to conceal the tops of the curtains. Across the back at a convenient height a "bridge" is fastened, 24 in. above the "stage". The whole structure gives a stage 42 in. \times 15 in., an excellent space for marionette work but rather large for the small cut-out figures made by children (see Fig. 22).

With both cut-outs and marionettes the proportion between the figure and the proscenium

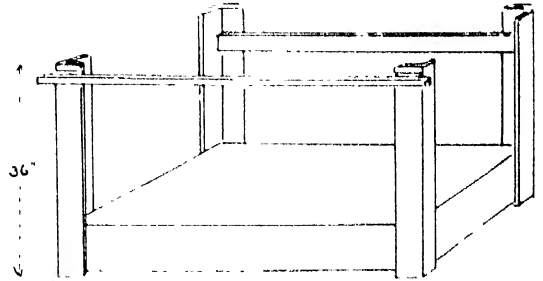


FIG. 22
A marionette stage

marionettes is large enough. The charms of the miniature theatre and the marionette stage lies in the possibility of this dramatic proportion and value being fulfilled.

Scenery for Cut-out Figures

The scenery, too, has more possibilities than that of the glove puppets. It is best made of cardboard, and not only can it be fastened at the back, but side wings can be added as in a real theatre. To do this, side pieces should be fixed from the front to the back and a few laths notched so that they can be fixed upon these and run across the top of the theatre. Scenic side pieces can then be fastened to these laths by means of drawing pins or spring clothes pegs, and quite elaborate effects can be achieved. The cut-out figures can be pushed on from the sides and can "enter" from the wings, and the marionettes, suspended from above, can also appear as though entering in the same realistic manner.

Spring clothes pegs are very useful in all miniature theatres. They can not only be used to attach the scenery to its laths, but also to hang up the puppets when not in use. A number of these small clothes pegs should be kept handy, and they will be found of great service all through the giving of the show.

Lighting

Lighting is a great asset to all miniature theatres, and the cut-out figures and marionettes are particularly enhanced by appropriate lighting. This is, however, outside the scope of infants' work, and as the glove puppet relies on its action rather than lighting effects, it is for this reason more suitable for Infants' Schools.

The Making of Marionettes

The making of the cut-out figures is easy, but a well-made and well-balanced marionette is a

thicker the material used for making the "glove" the better the puppet works; but the clothing of a marionette must be as thin and flimsy as possible so as not to interfere with its action. This knowledge comes from practical experience, and should be borne in mind when constructing both figures and clothes. It is important to remember, too, that the joints of a marionette must be very loose so that the limbs move easily and freely.

Any way of making a loosely jointed figure with heavy extremities is legitimate, and all such figures, however they are made, will have effective action. They can be made of heavy

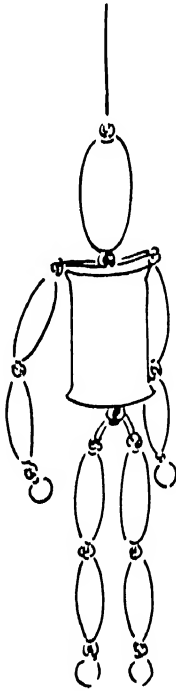


FIG. 23

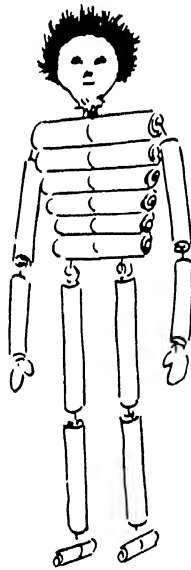


FIG. 24

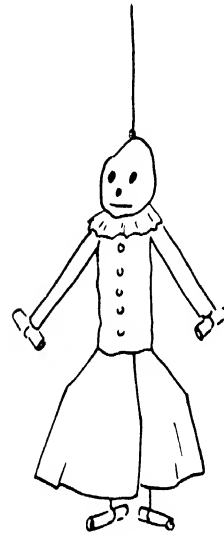


FIG. 25

Easy methods of making marionettes

different matter. There are many ways of making these small jointed figures, and each teacher can choose the way that suits her best. It is as well to remember the rules that govern them. Marionettes must, in some respects, be exactly the opposite of glove puppets. The lighter the head of a glove puppet, the better; but the head, hands and feet of a marionette should be as heavy as possible. Then too, the

beads from a bead curtain, with knots of string between (see Fig. 23), of rolls of paper threaded on string (Fig. 24), with heads of fabric and wood-wool weighted with lead. In fact, any method that results in a loosely jointed figure is legitimate. Fig. 25 shows a paper marionette made by a child of six. It has three strings, and this is quite enough for any young child to manage. No strings are attached to the legs and

the only limbs under control are the arms. Possibly the easiest method of making a marionette is to buy a "Dutch" wooden doll, dismember it, and put it together again in such a manner that the joints are very loose.

The Use of Wire

There are, too, great possibilities in flexible wire pipe-cleaners which can be formed into "arms" and "legs" and bent at any desired angle.

Thin black hat wire is the best for the head string as it does not twist and can hardly be seen. Strong dull black thread is best for arms and legs, and these "strings" should be fastened to a wooden "control." The writer has made effective controls out of small-sized coat hangers—those sold for children's clothes. The central hook is useful to hang up the puppet when not in use. The head wire is fastened to the centre of the bar and the wrist strings to either end. If strings are required for the movements of the legs, they should be attached to a separate rod of wood and worked with the other hand. But for infants' work this is too difficult, and one control only is sufficient.

Another method of control is to fasten small curtain rings to the ends of the strings and to fix them over the children's fingers. Thus the ring at the end of the "head" strings could be slipped over the index finger, one "arm" ring over the thumb and the other "arm" ring over the middle finger. Then by means of moving the fingers the puppet comes to life. This method of manipulating is useful for very small puppets only.

Animals

Animals are always effective on the puppet stage, and especially in the marionette theatre. They can be most amusing as they frolic in unexpected antics and attitudes. The writer has seen an excellent marionette show in a Junior School in Southport, where the old fable of the man who tried to please everyone was enacted. The fun of the whole piece was the ass, as it swung its head this way and that and seemed to be listening intently to the discussion. At one point both old man and boy had to jump

on the ass's back—a difficult piece of manipulation. The theatre was a fine piece of work. It was as large as a professional theatre, and had a strongly made platform for the "bridge" as in a professional theatre. This bridge was so high that the children had to climb up on it, and there was room for several at a time. The result was that a show could be given to large audiences in the big school hall, a most unusually finished production.

This is, of course, very rare in ordinary Primary Schools as this one was; and impossible and unnecessary in the Infants' Departments. But it shows the perfection to which the art can be carried if there is an enthusiastic teacher on the staff and a sympathetic Head.

The Plays

Having decided upon a puppet theatre, the question of the writing and production of plays arises. With the youngest children it is obvious that a great deal of the manipulation and play-writing must be done by the teacher. Indeed, in many schools the teacher decides to keep the illusion of the puppets from being destroyed, and so waits until the children are older before allowing them to go "behind the scenes."

The teacher then must find out what themes work out best for her particular purpose, and it is obvious that they must suit the particular kind of puppet she is using. Themes that work out well with marionettes are often of no use for glove puppets, so that the teacher must bear in mind the *actions* best suited to each type. Cut-out figures lend themselves best as illustrations for stories. Marionettes can walk, jump, fall down, and perform various actions; but they cannot handle properties with the same ease or naturalism as glove puppets. In one of the writer's shows, a father and mother fetch a bath, towel, soap, etc., and proceed to bath their baby. They pour in the water, test it to find out if it is too hot, wash the baby thoroughly, dry it in a towel, clear away all the apparatus, and so on. Such a series of actions would be impossible with marionettes. In another scene two puppets cut the string of a parcel, take off the brown paper wrapping, put

both string and paper tidily away, undo the box and take out the birthday present from inside—again impossible with full-length marionettes. The naturalism and charm of such actions make glove puppets of great interest to small children, who follow the play with intense amusement.

Action

It follows, therefore, that *action* is the soul of a good puppet play, with glove puppets or marionettes. Every dramatic *idea* must be expressed in dramatic *action*, and writing for the puppet stage is thus excellent preparation for writing for the theatre. The rules governing both are identical, but the puppet stage, being more limited in scope, requires more dramatic action to convey the idea. Indeed, it may be said that all the dramatic ideas of the puppet stage *must* be clothed in action to be successful. Speaking generally, abstractions are barred. Abstract ideas must be clothed in concrete action before they can become effective.

To take an example the old fable of The Goose that Laid the Golden Eggs is an excellent theme for a play. The simplicity of the story, the few characters required, the action that is obvious throughout, all suggest a good puppet play. But if, at the beginning the Farmer and his Wife merely *talk* about the goose or *discuss* the purchase of a new house, the play will fall flat. There is insufficient action in mere discussion. If, however, the Farmer brings on the plans of the new house, unrolls them, points out the various interesting features, rolls them up again and so embodies the idea in continuous *action* the play at once becomes interesting and enthralling.

There is indeed a peculiar fascination in watching these tiny actors performing the simple actions of everyday life. They draw the rapt attention of young and old, and, whether there are spoken words or silent mime, action should be kept up continuously so that there is not a dull moment throughout.

Fantastic Action

Not only are puppets good at everyday activities, but at exaggerated and fantastic

action too. Old legends and ballads come to life again when the puppets interpret them, and by their very nature it is possible to have giants and dragons and fabulous creatures of the fairy world performing actions that would be impossible for human beings on the greater stage. Animals can talk, do tricks, and walk upright. Cats and dogs can play *hide-and-seek*, go on picnics, and become attractively human. Indeed, very often these movements suggest little conversations, and the plays begin to grow out of the natural actions of the puppets themselves. One teacher who has bought a number of the writer's puppets said that the plays seemed to write themselves, and that the children found no difficulty in imagining the dolls in situations from which good dramatic action resulted.

Manipulation by Children

When the children are about five or six years of age (and even earlier in the school life if the teacher wishes) and are eager to manipulate the puppets themselves, it is as well to let them *play*, without restrictions, to get the *feel* of the puppets. They will soon manipulate them with ease and find increasing enjoyment in their possibilities. Very soon an idea for a drama will emerge from this happy play, and this can be discussed by teacher and children. The idea will develop and assume a form which can then be written down if the teacher wishes. Many good puppet plays never get written down. These serial stories develop and seem to continue unendingly, the same characters experiencing one adventure after another in the hands of the eager children.

Speech Training

It is obvious that here lie great possibilities for both Speech Training and Written English. At six years of age children can easily write down little conversations for puppets, and when these are performed it is obvious that they must be clearly spoken so that the audience can hear. Even shy children and stammerers are happy behind the back-cloth because they are not seen. Not only this, but many a slipshod speaker will make a real effort to improve because he covets

the honour of speaking the lines of the play. One London teacher has worked miracles in this way, improving out of all knowledge a class of very poor, careless speakers by means of a small glove puppet show.

Then, too, the ingenious teacher can turn jingles and tongue-twisters into puppet items still further to clear up speech difficulties. Mr Rodney Bennett has given the writer permission to dramatize some of his Speech Training Exercises and the following is a typical item for encouraging precision and clearness in speech

THE BEST NESTS

Enter Little Girl and Mrs. Wren. They meet in centre of stage.

LITTLE GIRL: Good morning, Mrs Wren

MRS. WREN: Good morning, my dear

LITTLE GIRL: Tell me, Mrs Wren, what makes the best nests?

MRS. WREN: The best nests?

LITTLE GIRL: Yes, Mrs. Wren, what makes the best nests? The stiffest straws and the stoutest sticks—do *they* make the best nests?

MRS. WREN (laughing): Ha, ha, ha! Ho, ho! The best nests? The stiffest straws? The stoutest sticks? Ha, ha, ha No, my dear—No

LITTLE GIRL (quickly) Well, Mrs Wren, if the stiffest straws and the stoutest sticks don't make the best nests, what *do* make the best nests?

MRS. WREN: I'll tell you, my dear The *softest* straws and the *thinnest* sticks—they make the best nests

LITTLE GIRL: O, thank you, Mrs Wren I'll remember that.

They walk off arm in arm—or rather arm in wing.

Many other tongue-twisters can be similarly turned to good account. For instance, Mr Shrubbs of Shropshire who goes to buy shrimps

It is obvious that in all these speech training exercises there is possibility of effective action and because of this they become far more interesting to the children. Indeed, it is astonishing how even the simplest doggerel becomes interesting the moment it is acted by the puppets. The following little rhyme which is well known in many Infants' Schools, makes an amusing item which the children love.

OLD WOMAN AND CAT

Sound of bell is heard

OLD WOMAN: Who's that ringing at our door bell?

CAT (poking her head in at side of stage): I'm a little black cat and I'm not very well.

OLD WOMAN: Then rub your little nose with a little mutton fat,

And *that's* the best cure for a little pussy-cat!

Again the action is obvious and can be elaborated by the Old Woman stroking the Cat, Cat purring, washing its face, etc

Children are very keen on making up their own plays and items. A very good exercise with which to begin is the writing of a Prologue, in which a puppet, or two puppets, tell the audience what to expect. The following Prologue is the production of a child of six, and is the kind of thing to be expected at first.

PUPPET (appearing before the closed curtains). I am a puppet I am very small, not big like you I can do lots of clever things even if I am small and you will see Jacko doing clever tricks too. Now we are going to begin so goodbye

Some quite young children love writing in verse, and the making up of rhymed couplets is eagerly looked forward to. The following little Prologue is useful for general occasions and is always well received by the audience. It has the great merit of quelling the uproarious noise rising from the excitement of the entertainment, for this sound always dies down at the words "Please don't make too great a noise." It is acted by two puppets, a little girl dressed in a full-skirted white "party" frock and a clown.

PROLOGUE

Clown and Little Girl appear before the closed curtains

CLOWN (waving his hand)

Hallo children - Girls and Boys!

Please don't make too great a noise!

I'm a little puppet clown

With merry face and jolly gown

LITTLE GIRL I am a girl

CLOWN And I a boy

LITTLE GIRL

We'll give you merriment and joy

We're little folk, not big like you

But many a clever thing we'll do

CLOWN We'll sing

LITTLE GIRL and dance

CLOWN and act

LITTLE GIRL and play

Amusing children the livelong day

CLOWN

We hope you'll like our little show

And give us a clap before we go.

LITTLE GIRL:

Now watch the curtains! Soon they'll part
And then our little show will start.

CLOWN:

So goodbye Children—Girls and Boys.

BOTH (whispered slowly and impressively):

Please—don't—make—too—great—a—noise!

Both bow, and EXIT.

The writing of Prologues for special occasions is also very interesting; for a Christmas show, for instance, when Father Christmas himself appears upon the stage and addresses the expectant audience. This Prologue was written by one of the writer's students and it has the great merit of allowing scope for action.

A CHRISTMAS PROLOGUE

FATHER CHRISTMAS:

I'm Father Christmas as you see.
All children in the world know me.
See my white beard and cheeks so red
And my long gown about me spread.
A great big sack is over yonder
With toys in it. For whom, I wonder!
For you—and you—and you—and you?
For children sweet and grown-ups too
And now a different gift I bring.
A jolly puppet show is here.
I hope you'll clap like anything
When I upon the stage appear.
I promise you an hour of bliss
Till then, I greet you with a kiss.

Fables, folk songs, legends, and the old fairy tales prove rich material for puppet items.

Nursery rhymes too, often suggest puppet items, and great is the children's joy to see their favourite characters come to life upon the stage. "Little Miss Muffet," "Sleep Baby Sleep," "Bye Baby Bunting," "Where are you going to, my Pretty Maid?" "Baa Baa Black Sheep," and many others can be treated in this way. Any rhyme with question and answer, such as "Where are you going to, my Pretty Maid?" is likely to be effective.

The following little rhyme was composed by one of the writer's students and made an excellent item for little children. The back-cloth showed a canal and three windmills in perspective.

GRETCHEN AND HANS

GRETCHEN (curtseying): I'm Gretchen.

HANS (bowing): I'm Hans.

GRETCHEN: I have many petticoats

HANS: I have patches on my pants

GRETCHEN: Says Gretchen (curtseying)

HANS: Says Hans (bowing)

GRETCHEN: I stay and help my mother
To scrub the floors quite clean
HANS: I go for walks along the shore
Against the dykes I lean

GRETCHEN (curtseying): Says Gretchen

HANS (bowing): Says Hans

GRETCHEN: My mother keeps a dairy
And makes round red Dutch cheeses

HANS: My father, he grows tulips
That sway in all the breezes

GRETCHEN: Says Gretchen

HANS: Says Hans

GRETCHEN: Our cows live in clean cowsheds
All lined with tiles so white,
And when I go a-milking
It is a pretty sight

HANS: Our tulips grow on land from which
The windmills pump the sea,
And dykes are built to keep us all
From dreadful floods quite free

GRETCHEN: Says Gretchen

HANS: Says Hans

GRETCHEN: We are two happy children

HANS: And Holland is our home

GRETCHEN: We love our country dearly

HANS: And never want to roam

GRETCHEN: Says Gretchen

HANS: Says Hans

Comedies, as one can imagine, are very popular especially if an attractive animal is part of the fun. In the writer's wide experience, the most popular item in her repertoire is *Clever Jacko*, which is nothing but a little monkey doing tricks for his Chinese master. The tricks are constantly varied. Sometimes Jacko goes through them obediently for a time, saluting like a soldier, bowing, and so on. Then he begins to be "naughty," pretending to be really dead to frighten his master, waving to someone in the audience, leaning too far over the front of the theatre, swinging on the curtains and being greeted throughout by ecstatic shrieks of joy as trick succeeds trick. This is the kind of action most effective with glove puppets and never fails to evoke pleasure and applause. If Jacko is also taught to count and read there is still greater fun as he makes many mistakes and is corrected by the eager audience. Every practical teacher can see possibilities of instruction

in this amusing play. The following conversation is the kind of thing children of all ages love. It can, of course, be altered by the teacher to suit her own purpose; but as it stands it makes an amusing item for the end-of-term entertainment.

IN SCHOOL

LI HUNG CHI: Jacko, where are you? (Silence) Do you know it is nine o'clock—school time—and you are late? Where are you?

VOICE (from below): He's here, Sir!

LI HUNG CHI: Oh, he's down there, is he? What's he doing?

VOICE: Nothing, Sir!

LI HUNG CHI: Nothing? Well, what are *you* doing?

VOICE: I'm helping Jacko, Sir.

LI HUNG CHI (flinging his hands in the air) Oh dear, oh dear! What am I to do with such naughty boys? Jacko, come up here at once (Jacko peeps from behind curtain and waves at audience.) No blackboard, no chalk, no anything! A fine monitor he is. Jacko! Jacko!

(Jacko enters.)

JACKO: Yes, Master. (To the audience) Hoo! Hoo!

LI HUNG CHI: Listen to me. Here it is after nine o'clock and nothing ready. Go and fetch the blackboard and chalk. (Jacko fetches blackboard, chalk, etc.) That's better. Now we are ready for lessons. We'll start with your homework. Have you got your homework book? No? I thought so! Go and fetch it at once. (Jacko goes out and returns with a little book.) Now let me see. Did you learn that list of words?

JACKO: Oh yes, Master.

LI HUNG CHI: Well, let me see whether you know their meaning. TRANSPARENT—what does that mean? (Jacko scratches his head) You don't know? Well, I'll tell you. Transparent means something you can see through.

JACKO: Something you can see through?

LI HUNG CHI: Yes. Now tell me something transparent—something you can see through.

JACKO: Oh, I know—a keyhole.

LI HUNG CHI: Oh dear! What am I to do with such a scholar? Now Trans means "across," like Trans-Atlantic means across the Atlantic.

JACKO: Oh, then Transparent means a cross parent. My Dad's often cross with me.

LI HUNG CHI: And no wonder. Let us have a few sums instead. If I had a pie and gave you one third, and myself one third, and the audience one third, what would be left?

JACKO: I dunno. (Scratches his head)

LI HUNG CHI: Come now, me one third, you one third, and the audience one third. What would be left?

JACKO: Oh, I know! The *dish* would be left

LI HUNG CHI: Oh, dear me! Oh dear me! I'll try another. Which would you prefer—two bags containing three oranges each, or three bags containing two oranges each?

JACKO (after thought): I'd have three bags with two in each.

LI HUNG CHI: Oh, why?

JACKO: 'Cos there'd be more bags to burst! Ha, ha, ha! (Claps his hands.)

LI HUNG CHI: Jacko, you're hopeless. You never get any sums right. I'll try you with the easiest of all. Now surely you can get this right. What's two and two?

JACKO: Two and two?

LI HUNG CHI: Yes. Now that's easy enough.

JACKO (after a pause): Four!

LI HUNG CHI: Oh, that's not so bad.

JACKO: Not so bad! Why, it's perfect.

LI HUNG CHI: All right, then. Now can you write it down on the board? Here's the chalk. Write two and two make four.

(Jacko, while the Chinaman is not looking, draws two slanting eyes, and says "Two"; a nose and mouth, "and two"; a ring round them with a pigtail, "makes four." That's right." He rapidly writes "Master" underneath just as the Chinaman turns and sees it. The Chinaman cries "You naughty fellow," and gives him a few blows, eventually chasing him off the stage.)

Note: The board should be steadied by resting the left elbow on its base during the writing.)

CURTAIN

Although puppets lend themselves to comedy and knock-about farce, they can also be very effective in quiet sentiment and produce, if well manipulated, moments of pathos and even of tragedy. But the manipulating must be very carefully performed, with slow, smooth movements and without those sudden jerks that inevitably lead to a laugh. The following little Nativity Play is a great favourite with children great and small. The writer conceived it for two people, as it requires four hands. When carefully performed it is very effective and is suitable for a Christmas entertainment.

BETHLEHEM (FOUR HANDS)

(Scene: A street in Bethlehem nearly two thousand years ago. Enter Joseph and Mary, he supporting her tenderly.)

JOSEPH: Courage now, O Mary dear,
Our journey's end is drawing near.

We to Bethlehem have come
And very soon will find a home.

MARY: Oh Joseph dear, so strong and kind,
(Quickly now a home must find
Thy Mary's feet so weary are
For she hath travelled very far.

JOSEPH: Here is a house all clean and neat
Where thou canst rest thy weary feet.
(Knocks, and a head appears at the window.)

HEAD: What is it? What's the matter there?

JOSEPH: Hast thou a little room to spare?

HEAD: No room have we. Each room is taken,
Nor will our guests be pleased to waken.
So try across the other side
Where stands the casement open wide.

MARY: O Joseph dear, so strong and kind,
So weary I an ark to find
Like to the dove that weary flew
With olive branch across the blue,

JOSEPH: We'll knock again. (He knocks, and a head appears at the other window)

HEAD: Now what's the matter
That you do make so great a clatter?

JOSEPH: We pray, kind folk, you'll let us stay
For we have travelled far to-day.

HEAD: No room is here,
I greatly fear
'Twill be thy doom to find no room.
But if you care
With beasts to share,
As Noah's kin
The ark within,
Behold the stable open wide
Will give you both a place to bide.

MARY: We thank you now, and gladly take
The shelter that your stables make
(They look in the direction of the stable from whence a faint glow of light has appeared.)

JOSEPH: A bed of straw A manger standing nigh,
The kindly beasts with calm and gentle eye.
So we an ark have found. My little dove
An olive branch will bring—a Prince of Love.
(He supports her as they slowly depart.)

CURTAIN

It would be appropriate to end this account of the puppet show in education by a Puppet's Epilogue. The children should be encouraged to improvise or write their own, either in prose or in verse. An Epilogue finishes a show off neatly and often has the effect of calming the excitement too often ending in tears as the audience realizes the end has come. Children never wish the show to end, and it is a common thing for noisy tears to mark the final fall of the curtain. However long the show, it is, apparently, never

too long, but always too short. The wise teacher, or showman, will rigidly adhere to a certain definite time, regulated by the age of the children. Half an hour of puppet entertainment is enough for very young children; forty minutes for those under ten, and an hour for the older ones. Not only is this sufficient for the audience, but it is also sufficient for the showman, if he or she has no assistance. Fortunately in everyday school practice there is no lack of willing helpers, and so the difficulty does not arise. But for a one-man-show such as is the writer's, there is nothing more exhausting, both physically and mentally, than steady continuous manipulation for an hour. Not only does it tire the hands and arms, but it is a constant strain on the voice, which has to be altered to suit the various characters on the stage. Added to this is the subtle attuning of the personality to that of the unseen audience—the giving of the whole self through hands and voice and mind. Any teacher who undertakes to give such shows should be careful not to tax her resources too far, but rigidly keep to the time she has prepared, however much her audience clamours for more.

Here, then, is an Epilogue calculated to soothe and calm the audience and prepare them for the moment when the curtains fall for the last time. It can be played by any two puppets—Boy and Girl, Youth and Maiden, etc.

PUPPETS' EPILOGUE

FIRST PUPPET:

Our play is over. Now the curtains fall
We hope our little show has pleased you all

SECOND PUPPET:

Like you bigger people of the earth
We've had our day of pleasure and of mirth.

FIRST PUPPET:

A puppet's life is short. He struts a day
And then into his box is put away.

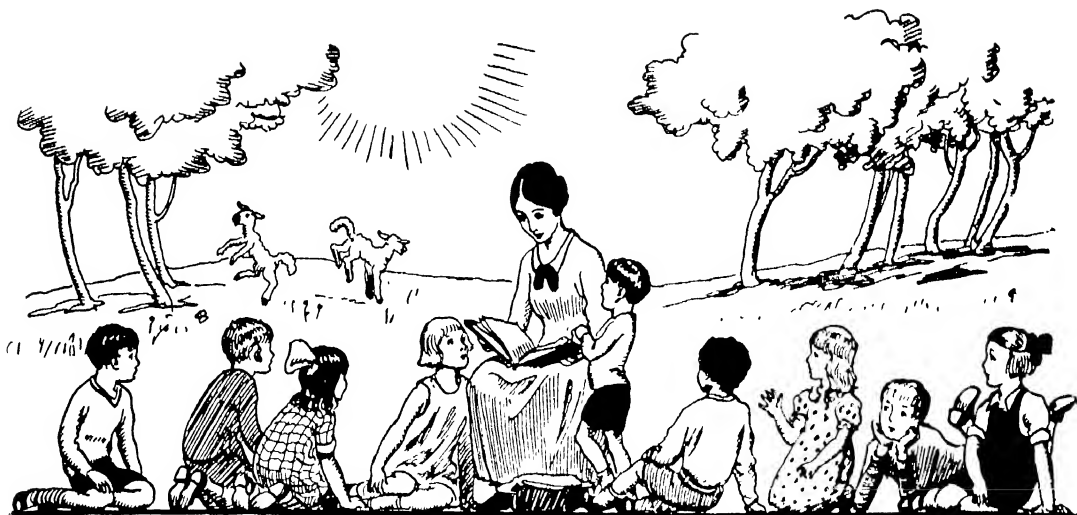
SECOND PUPPET:

But if we've pleased you, show us now your pleasure
And do not stint it—give it in full measure.

FIRST PUPPET:

So ring the curtains down. Now fades the light,
And with our love we'll wish you all—Good night!

POETRY



TEACHING POETRY TO YOUNG CHILDREN

PEOPLE are very well aware of the influence that the study and appreciation of literature have upon the youthful no less than upon the adult mind and character.

The question is not, then, "Is this a matter to be considered?" but "What is the best way of tackling it?" In hardly any other subject, I should think, do the personal taste and judgment of the teacher play so important a part.

Cultivating a Taste for Poetry

The study of poetry does not consist of the study and observation of facts, as in geography or history, nor is it a question of logical processes, as in mathematics.

You may cultivate a taste for good literature by reading widely and wisely, but even that though it will go a good long way, isn't by any means going to teach you all that you require to know before you can teach others.

The art of rendering poetry, for example, the appreciation of the subtle charms of rhythm, accent, assonance—these things are matters of the ear, and of rather specially delicate perceptive powers. It is one thing to *feel* that poetry is beautiful, and another to make it *sound* beautiful.

I will try to give you a few of my own ideas on this subject.

The subject may be divided into four sections thus—

- (a) The selection of poetry
- (b) The appreciation of poetry.
- (c) Rendering poetry.
- (d) Writing poetry.

A—Selecting What Children Like

In order to make a suitable selection of poetry for young children it is, of course, necessary to have good taste and good judgment. These can only be acquired by constantly reading the best authors. There are books of guidance—books on style, technique, etc. But nothing, to my mind, so surely and inevitably tends to improve one's taste as the *actual reading* of good poetry.

If you read enough good literature, you *cannot help* acquiring a feeling for, and love of, the most beautiful, just as, if you see enough good pictures you can't help, in time, getting an eye for the best in that form of art. But what is the best? Fortunately Time, the great sifter is a pretty safe guide in this matter.

If one is acquainted with Chaucer, Shakespeare, Milton, Shelley, Keats, Wordsworth, Tennyson, to mention only a few of our great

names, one will probably have a pretty good idea as to what is good poetry and what is not.

The works of these writers are not necessarily suitable for children—though it is astonishing how eagerly some children will respond to the highest and most advanced types of poetry.

But reading these will make one more competent to choose good poetry for the children to read, hear, and learn.

Poetry Books in Bygone Days

In days gone by, children's poetry books contained a very feeble assortment of matter.



"I Wandered Lonely as a Cloud"

We all know the Jane and Ann Taylor type of verse (which, as a matter of fact, was at its best quite good, though pretty bad at its worst), with the almost inevitable moral attached. Charles Lamb and his sister wrote an extremely dull volume of this kind. Fortunately it has already vanished into obscurity, only to be remembered by the student and the curious.

After this, the collections—with one or two exceptions, such as Kate Greenaway's too little appreciated poems, which were rather thrown into the shade by the charm of her pictures—grew worse. The poems were still selected, it would seem, solely on account of the story they had to tell, religious, moral, or historical.

Now, many of these poems were by no means essentially bad—"We are Seven," "Casa-

bianca," "The Wreck of the Hesperus," are typical examples—but the point is that they were all more or less of the same kind, while in many instances they lacked that beauty of thought, that charm of expression, that allure of musical sound, which should, after all, constitute the chief attraction of poetry. And it is a great mistake to think that children are, as a whole, insensible to these things.

Loving the Lovely Sound

I knew a little girl of ten, a perfectly ordinary, normal little girl, who came from a home where the atmosphere was certainly not "high-brow," who used to repeat Wordsworth's "*I wandered lonely as a cloud*" with an expression of enthusiastic delight on her face. She loved the lovely sound of it.

But it is, of course, by no means necessary that a poem should be in any way abstruse or lofty in thought, or complicated in construction, in order to be a good poem. It may be exceedingly simple in every way; indeed, pretentiousness is one of the very worst faults one comes across in literature. On the other hand, simplicity and a childish subject are not enough.

It is very easy to write this sort of thing—

*I love my dolly very much,
Her eyes are very blue,
She always has her tea with me
And sometimes dinner too.*

Anyone could do it. But it isn't poetry, and it isn't worth learning. And it is just as important for small children to learn good things as for big ones.

Where to Find Good Poems

Fortunately, a great many people are doing much better stuff than that nowadays (though there is still a good deal of that kind of thing about) and in the anthologies published for children are many examples of charming verse of a simple kind. These anthologies are published by first-class firms, and the names of the editors—often well known in the literary world—are a sufficient guarantee that the contents will at any rate not be cheap and worthless. The choice is, indeed, in most cases, excellent.

You may not care for all the poems selected, and you may find that your class will receive some of them without enthusiasm; but you are pretty certain to be able to make use of a large proportion of the contents one way or another, and when the editor is a person of well-established repute, you may at least rely upon not getting any rubbish.

There are also one or two really high-class annuals in which excellent verses for children may be found.

What to Avoid

Three kinds of poems should be avoided, namely, the very sentimental, the morbid, and those poems which imitate babyish talk. Children may be attracted by the first two, but the taste is not one to be encouraged. The third kind children do not, as a rule, even like.

It is a good plan, wherever possible, to let the children themselves have a choice in the selection of poems. They are so much more likely to come to love and appreciate poetry if they are encouraged by being allowed to learn what specially appeals to them. If you read several poems over to a class, the choice can go by show of hands. And this leads to the second aspect of the subject, *Appreciation*.

B—Appreciation of Good Verse

How are we to educate the child's taste so that he may develop a taste for good poetry? How are we going to teach him discrimination and appreciation?

The same method can be applied here as in the case of the untrained adult mind, but with even more promise of ultimate success, inasmuch as the mind of the child is so much more plastic and impressionable. Whenever you can, read good poetry aloud to the children. Let them hear the best. That is the chief thing, always bearing in mind that the best does not necessarily mean the most serious or the most lofty.

"Ride a Cock-Horse to Banbury Cross" is, to my mind, a charming poem, so are Stevenson's "I have a Little Shadow," Carroll's "The Walrus and the Carpenter," Walter de La Mare's "Lost Shoe," and the old-fashioned, but

quaintly engaging "Twinkle, Twinkle, little Star." All these are suitable for quite young children.

I mention these particular poems because they are of widely differing types. There are hundreds more to be found for the seeking, and the seeking is not a very laborious task these days.

It is important to make the selection of poems as varied as possible. Narrative poems, such as Browning's "Pied Piper" and Longfellow's "Hiawatha," can be interspersed with



"The Lost Shoe"

poems of the more fanciful type. It does not matter if words occur which are unfamiliar to the children.

What *does* matter is that the general idea should be comprehensible. After all, the only way to acquire a vocabulary is to hear the words in actual use. Children who come from homes where there is not much education often have no opportunities of hearing new words other than those provided by their teachers.

The Poet's Word Pictures

The actual reading of poetry to the class may be supplemented by special guidance. You can help the children to understand what the poet is trying to do. You can make them realize a little how he is trying to make a picture of what is in his mind and heart. You can point out that there is a pretty way of saying things and a less pretty way, that some poems sound brave and strong and others gay and dancing, and that the poet has taken a good deal of trouble to use the right words. Not necessarily

"grand" words, or big and unusual words, but just the *right* ones.

Even little children can be made to realize something of the music and magic of poetry, of the difference between, let us say, the bold ring of Macaulay's "Lays" and the pretty prattle of Tennyson's "Brook."

Feeling the Rhythm

Also you can set the children seeking simple rhymes and beating out simple rhythms. "Let us see how many rhymes we can find to 'cat'" "Let us beat out on the desks the rhythm of 'Mary, Mary, quite contrary.'" Never mind if they do not at first know what you mean by these terms. They will know after the first time.

All this may sound a little advanced and "high-brow," but it is not really so. A feeling for rhythm, and the craving for expression, are natural and elementary instincts. Even a baby will respond to the beat of a nursery jingle, and children love expressive phrases and soon learn to appreciate them.

Of course, some children are much more sensitive to these things than others, but it would have to be a very dull child that could not hear the difference between regular lines of poetry with a simple well-defined accent, and a piece of ordinary prose. And that, after all, is the first step towards appreciation. One has to begin at the very beginning, but *something* one is bound to achieve.

Children's Reactions to Poems

A little later on, it is very interesting to observe the reactions of children to various forms of poetry.

"Do you like this poem?" "Why?" (or "Why not?" as the case may be). "Do you like it because of the pretty sound it makes, or because of what it tells you?" "Why do you think the writer used such and such a word?" "Can you think of another word that he might have used?" "Can you say 'la, la,' or clap your hands in the same time or rhythm as this line?" All this can be done at first with a simple nursery rhyme.

Questions of this sort help to make children

understand—in a very elementary way, of course—something of the technique of poetry.

The next stage consists of making them write little verses themselves, but before touching on that matter, which is not of very great importance with quite young children, let us speak of the rendering—the reciting aloud of verse by children.

C—Reciting Aloud

In a big class it is, I know, very difficult to decide how best to handle this matter.

It is obviously impossible for each child to recite separately at a lesson, and although modern ideas on the rendering of verse lean rather towards a certain expressionless intoning (always with marked attention to rhythm and accent), this will not prove very satisfactory in the case of a number of children all performing in unison. Intentional irregularities of rhythm become entirely lost, and altogether the effect is uninspiring and monotonous.

Perhaps the best way is to let the children say the verses once all through together, more or less as a memory exercise, but insisting, as far as possible, on correct vowels and consonants, and then to let two or three of the children recite separately.

In individual recitation, indeed in all recitation, the first things to be aimed at are distinct enunciation and correct pronunciation. Now, this matter of correct speech is one of the greatest difficulties with which teachers have to contend. In many districts the local dialect is so marked that the task of making the children conform at all to standard speech seems an almost hopeless one. But *something*, at any rate, can be done.

Teaching Correct Speech

If the children can be taught how to pronounce correct vowels, that will be an immense help to them if, later on, they are anxious to improve their speech. Make them notice the difference between a pure "o" sound and a debased one, between "at" and "et" (in some districts these two sounds are hardly differentiated); let them learn to distinguish between "die" and "day."

Later on it will be impossible for them to do or even to *hear* these things, just as it is impossible, or almost impossible, for most adults to produce certain specifically French sounds if they have not learnt to do so in early childhood. The organs of speech, like some of the other organs, become, it seems, less pliable with increasing age. It is hardly possible, in the limited time devoted to the reading and teaching of poetry, entirely to alter the manner of speech of children who hear incorrect speech constantly around them in their homes and from their companions. But it is astonishing what patience and enthusiasm will sometimes achieve

Training the Speaking Voice

A few simple vowel exercises at different pitches will train the ear and help to improve the flexibility and quality of the children's voices.

Take, for instance, a single vowel, *ō*. Put before it a succession of consonants—

Lo—lo—lo—lo
Do—do—do—do

and so on, making the children repeat the syllables at three pitches, high, medium, and low, and with a slight rising inflection on each syllable excepting the last, which should fall. If you don't do this, you will find that the children are *singing* the exercise—as, after all, the only essential difference between speaking and singing lies in the fact that in the latter the pitch is sustained for an appreciable time, while in the former it is constantly moving by swift and minute steps which can hardly be measured.

The less open, or short vowels, as they are often called, can be practised in syllable form with consonants preceding and following them. Thus—

Pat—pet—pit—pot—put
Sam—sem—sim—som—sum

and so on. But it is not of the slightest use taking these exercises unless you see that the vowels and consonants are carefully and properly pronounced. Indistinct pronunciation of consonants is a very common fault, and one by no means confined to one class.

Try to get the children to say "acts" instead

of "ax," "thinking" instead of "thinkin," "I saw a lady" instead of "I *sor* a lady," and "matter" instead of "ma-er." (This last curious mispronunciation is common to some districts only, and is difficult to transcribe otherwise than phonetically.)

Matters of Small Importance

"Should one pronounce the 'h' in 'which'?" "Is it better to say 'solt' or 'sault' (salt)?" are examples of questions often asked by teachers.

Now, these little points are not really of very great importance, and are often optional. What is important is to get the children to make clear, open vowels and neat consonants, to open their mouths, to lift their uvulas, and to make proper use of their tongues, lips, and other vocal organs. A course of phonetics is immensely helpful to any teacher. You know then what you are trying to do.

Interpretation and Accent

With regard to interpretation, as apart from enunciation, the teacher's individual taste and judgment are again all-important. It is inevitable that the child should be entirely guided by the teacher, and it is most difficult to lay down rules. Accent (meaning verse accent) is of course most important.

I myself think, for instance, that it is always a mistake to let one line of a poem run right on into another, even if the sense seems to demand it. There should always be a slight break at the end of a line. On the other hand, accents should not be hammered out so insistently as to annihilate all else. Even with tiny children these points can be observed, and they can be made to understand that it is their task to try to make what they are saying sound *interesting*.

It is, on the other hand, very easy to overdo this matter of expression. The children are sometimes taught, and I have heard this in the case of quite little mites, to adopt a certain affected and artificial manner of speaking poetry which bears no resemblance to any natural human method of speech. A tone of voice is

employed which can only be described as an "elocutionary" tone. The cadences are unnatural, the whole performance horribly affected. It is true that to speak in rhyme or rhythm is not an entirely natural thing, but the conventions governing simple verse are not very artificial and should be simply treated.

Should Action be Used?

This is a question on which I feel rather strongly. If action or gesture does not help in the interpretation of a poem it is superfluous, and therefore much better omitted.

In this country people do not naturally use much gesture. Why, then, should it be employed in undramatic verse? There are still people (one cannot help but feel that they are much misguided people) who seem to have an idea that unless every line has its appropriate (?) gesture, even the simplest poem is not being adequately dealt with!

But what could be more idiotic than for a small child to put its hand behind its ear when it speaks of listening? No child dreams of putting its hand behind its ear when it is listening. Only deaf old gentlemen do that. No child waves its arms about in studied curves when it makes such a simple remark as: "*I rose and found the shining dew on every buttercup*," and yet children are continually being made to do these things when they are saying poetry. This does not necessarily mean that all gesture is out of place; there are moments when a gesture quite naturally expresses an emotion.

To illustrate by example: In Eugene Field's charming poem, "*Wynken, Blynken and Nod*," the following verse occurs—

*All night long their nets they threw
To the stars in the twinkling foam—
Then down from the sky came the wooden shoe,
Bringing the fishermen home;*

Now, a net-casting gesture would not help this verse in the least, neither would an upward pointing, to indicate the direction from which the wooden shoe was supposed to appear. The pretty words tell the story perfectly, and the child reciting it would only be embarrassed and hampered by having to think about gestures.

To take another, and a contrary, instance from one of my own poems. In it the line occurs—

*"I've seen her, I've seen her, beneath an
apple tree."*

In this case I should feel that a gesture of excited, clasped hands would be quite appropriate, as it is just the sort of movement that might be made by a little girl who had just seen the Fairy Queen. On the other hand, a pointing towards an imaginary apple tree in the distance would be quite out of place because it doesn't help to express anything.

All this may seem very arbitrary, but such things depend on æsthetic laws which are not easy to define briefly, depending ultimately upon suitability. Where a number of children are reciting in unison there may be occasions on which action is not inappropriate. It then becomes conventional and, as it were, decorative, as in a Greek chorus. But the gesture is now impersonal, and what would be quite suitable in a communal performance might be entirely out of place in an individual recitation.

D—Writing Poetry

And now to come to the last section of the subject, verse making. Verse writing is an excellent exercise for children. It is a fact that one learns to appreciate any form of art a great deal more if one makes some attempts, even though they be only elementary ones, to practise the technique of that art.

Naturally, in the case of very young children, any attempt at writing verse *can* be of only the simplest character, but even at this early stage it will be found of definite educative value. Their sense of rhythm will be stimulated, they will begin to learn something of handling words and of putting their ideas into a definite form. All this is useful training for the mind, just as voice training is useful for the speech organs. One can begin in a very simple way.

"I have a little cat . . ."

There is your line. Let the children make a second one to match it and rhyme with it. Tell them that they are not supposed to be making poetry but only doing an exercise. Most children

will be able to make a second line, especially if they have already done a little rhyme finding and time beating. This is the first step, and it will be a foundation for more advanced work later on.

But there is one thing to be avoided. Don't let the children imagine that because they have made a rhymed verse they are poets. Of course, in the case of very little children this matter does not come so much into consideration as with older ones, but lately a good deal has been made of efforts of this sort, and whole books have even been published containing poems by young children. This is rather a pity. Immature, untrained children cannot produce literature, and interesting as their efforts are from the psychological point of view, they cannot be of much value to the general community.

Writing Verses for Children

A word or two to those who themselves write verses for children may perhaps not be out of place here.

I should like to make it clear that writing for children is not easier than writing for grown-up people. For one thing, one is very much limited in the matter of subject. If one's subject is sufficiently simple to be suitable for a small child, the language must be correspondingly so, and it is not at all easy to avoid banality.

The great thing is to be *sincere* and not to try to *write down* to the child. Simplicity is not the same thing as childishness, though the distinction may seem a subtle one.

A careful technique is every bit as necessary here as in the more complicated forms of verse-writing. But it is well to remember that because a poem is easy to learn and easy to recite, that does not necessarily mean that it was easy to write.

To Sum Up

And now for a brief recapitulation of my principal points

In *selection*, success depends upon the extent

to which you have trained your own taste by good reading.

In teaching *appreciation*, give the children the best that you can find, relying upon the same method as that by which you trained your own taste, but guiding them by pointing out special excellences, and by giving them an elementary idea of the technique of verse.

In teaching *recitation*, avoid affectation, remembering that Standard English is not affected English. Do what you can to get the children to make good vowels and consonants. This is immensely important.

As regards the *writing of poetry*, let the children try by all means, but do not regard, or let them regard, their efforts as valuable, except as training in expression and in the use of language and simple verse form.

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Number Rhymes and Finger Plays, E. R. Boyce and Kathleen Bartlett, Pitman, 6s.

Pan Verses and Verse Appreciations for Three to Seven-Year-Olds, Kathleen Bartlett, Pitman, 6s.

Round the Cherry Tree, Kathleen Bartlett, Pitman, 5s. Original verses for group reciting and action games for three to eight-year-olds.

Nursery Rhymes and Stories, Jenney Dean, Pitman, 1s. 6d. With each rhyme or story are simple exercises and things to do.

We Play and Grow, Maisie Cobby, Pitman, 3s. 9d. each

Jingles for Me to Play I am five.

Rhymes for Me to Speak I am five.

Jingles for Me to Play I am Six.

Rhymes for Me to Speak I am Six.

Jingles for Me to Play I am Seven.

Rhymes for Me to Speak I am Seven.

POEMS FOR THE THREE TO FIVE-YEAR-OLDS

POEMS for the tinies should be said to them by the teacher. They should contain direct, colourful rhythms, rollicking humour, and lively action. This is why the Nursery Rhymes of "Mother Goose" are so suitable. They are also quite easy to understand. It is of real importance that in the poems chosen for the earlier age no words need be explained. Take the rhyme—

*Little Miss Muffet
Sat on a tuffet.*

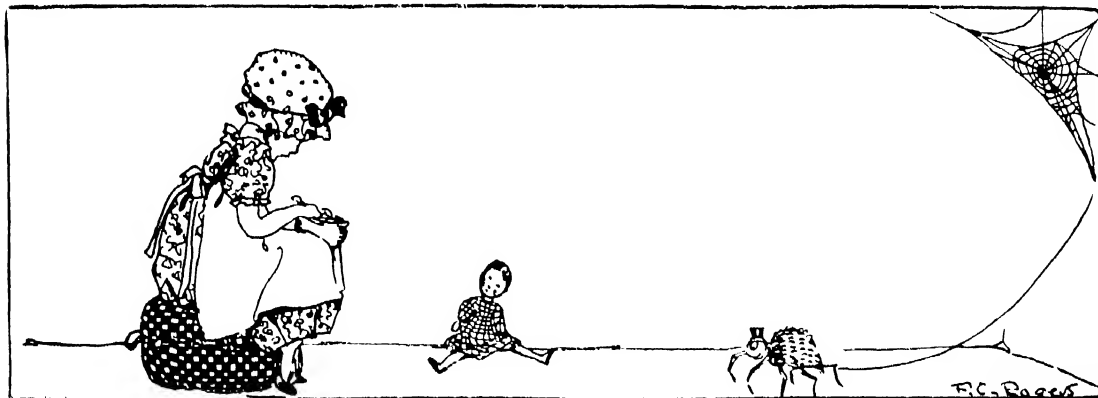
What *is* a tuffet? In the words of an American writer, Dr. Crothers, "A tuffet is the kind of thing that Miss Muffet sat on." It is thus clearly not a thing that puzzles children. The rhyme gives the child a hint, and then he fills in the details from his own imagination.

The repetition of the first poems learnt by children should be quite as spontaneous as is any form of play. They should not be taught line by line. "Mother Goose" is full of things to say, to do, and to sing, and in the list of poems given for the three to five-year-olds, will be found many more. One must be careful not to give Stevenson indiscriminately to the younger children; he is often more genuinely appreciated by the seven and eight-year-olds, and by even older children. Many of his poems are too imaginative. There is not a chorus or refrain in the whole book in which all the children may join, and it is important, when teaching poetry to little ones, to choose poems with refrains, so that all the class can join.

Music Helps in Teaching Poetry

Music of words is the first thing we look for when choosing poems for the youngest children. Mere jingles, providing they are musical, are useful for emphasizing this side of verse. It is helpful (1) if some of these earlier verses are set to music which children can sing. (2) To let the class march to the rhythm of recited verses. (3) To teach them, if possible, to dance to some of them (*See Section on Rhythmic Studies*). Some such helps as these deepen the impression of music, record in the child's mind an impression of the poem as an image of motion, and show how the mood produced in them by the poem can be expressed.

In dealing with the tinies only a few poems need be given, but they should be repeated frequently. Little children never tire of hearing the same story and the same verses over and over again.



"Little Miss Muffet"

Some Well-known Poems for the Three to Five-Year-Olds

Name and Author	Theme and Remarks
<i>Nursery Rhymes</i>	Some of the most useful are: Pat-a-Cake; Blow, Wind, Blow, Humpty-Dumpty, Jack and Jill; Diddle Diddle Dumpling; The Cat and the Fiddle; Hush-a-Bye Baby, Hickory Dickory Dock; Baa, Baa Black Sheep, Jack, Be Nimble. These should be repeated until the little ones can say them without prompting
<i>Number Poems</i>	A rhyme for counting on fingers and toes Some five-year-olds may find this too difficult. Introducing first ten numbers only
This Little Pig went to Market. One, Two, Buckle my Shoe. I caught a Hare Alive.	
<i>Other Poems about Animals, the Weather, and Familiar Things</i>	
I had a little Doggie that used to sit and beg. (<i>Old Rhyme.</i>)	An interesting little tale about a dog
The Lamb. (<i>Kate Greenaway</i>)	A little rhyme about a pet lamb, useful to teach in spring, or in connection with lessons about the farm
Pussy has a Whiskered Face. (<i>Christina Rossetti.</i>)	A stanza about three pets, pussy, kitty, and doggie
The Chorus of Frogs. (<i>Anne Hawkshawe</i>)	Little ones will love to pretend they are frogs and say these verses in chorus
The Cats Have Come to Tea. (<i>Kate Greenaway</i>)	To be read to the children. A poem to make them laugh
The Three Little Kittens (<i>Eliza Follen</i>)	The story of the little kittens who lost their mittens
Where Do You Come from, you Little Drops of Rain? (<i>Anne Hawkshawe.</i>)	A good poem to read on a wet day, with pleasant sounds for little ones
A Happy Child. (<i>Kate Greenaway.</i>)	Tells of many things that make the child happy
My Blue Bowl. (<i>Author Unknown</i>)	Both these poems please the times because they are about something very familiar—bread and milk. The first poem is the more musical
Baby's Breakfast. (<i>Emilie Poulsson</i>)	
The Dandelion. (<i>Mrs. Erskine.</i>)	A lovely little poem for the children to hear. The five-year-olds will be able to act it
The Swing. (<i>R. L. Stevenson.</i>)	A more objective poem, it can be played by the children.
Moon, so Round and Yellow. (<i>Matthias Barr</i>)	A simple little poem about the moon
Walking in the Streets. (<i>Matthew Browne</i>)	Little ones will enjoy repeating the chorus. It tells about the different people walking in the streets, and can be played by the children.
The Muffin-Man's Bell (<i>Anne Hawkshawe</i>)	Children love to say the poem and play at being muffin men
The Spider. (<i>Anne Hawkshawe.</i>)	A pleasant story about a hungry spider who does <i>not</i> catch the wise little flies. Excellent for the children to play. It has a refrain that they will enjoy.
Sleep, Baby Sleep. (<i>From the German.</i>)	A beautiful lullaby.
Spring Voices. (<i>Old Poem</i>)	Children will enjoy taking the part of the crow, the duck, and the frog
Spring Work at the Farm. (<i>Thirsa Wakley.</i>)	A delightful little poem about farm life

Name and Author	Theme and Remarks
Little Miss Snowdrop. (<i>Author Unknown.</i>)	Useful in spring days, when the children are drawing the snowdrop
Goosie Gray. (<i>G. F. Jackson.</i>)	Little ones will enjoy the story of busy Mother Goose and how she looked after her little ones.
The Cow. (<i>Mrs. Motherly.</i>)	Useful for lessons about the farm.
What Robin Told. (<i>George Cooper.</i>)	To be read to the children They will love to hear how Robin builds his nest.
Whisky, Frisky, the Squirrel. (<i>Old Poem.</i>)	Suitable for children when they know something about the squirrel The verbal sounds in this poem please the times
Sleeping. (<i>William Allingham.</i>)	A pretty poem for the evening.
The Station. (<i>G. K. Parsons.</i>)	An easy poem for little ones of five who have seen a railway station.
Daisies. " <i>The daisies white are nursery maids with frills upon their caps.</i> " (<i>Author Unknown.</i>)	A delightful little poem to read to little ones who have gathered daisies.
When Santa Claus Comes. (<i>Old Rhyme.</i>)	Two delightful poems for little ones to learn at Christmas time. They can play the first poem.
Why do Bells for Christmas Ring? (<i>L. A. C. Ward.</i>)	

Note.—Most of the poems in these lists may be found in the *Little Gem Poetry Books* (G Bell & Sons, Infant's Book and Book I) and the *Cambridge Book of Poetry for Children* (Part I)

POEMS FOR THE FIVES AND SIXES

GROWING interest in the outdoor world makes little ones very sensitive to the beauty of poetry that tells about the things in this world. A fairly comprehensive list of poems about plants and animals has been given; exactly at what age they should be read to the children depends on the children's acquaintance with the outdoor world. In some cases it may be necessary to devise ways of giving the children interesting experiences, before introducing them to a poem that may require such a basis for full appreciation. For example, if the children have never seen a blacksmith at work, pictures, talks and acting will prepare them for the rhyme "The Blacksmith hammers the whole day long." This method of approaching literature through experiences becomes of great importance as children grow older, especially if their background is unusually limited.

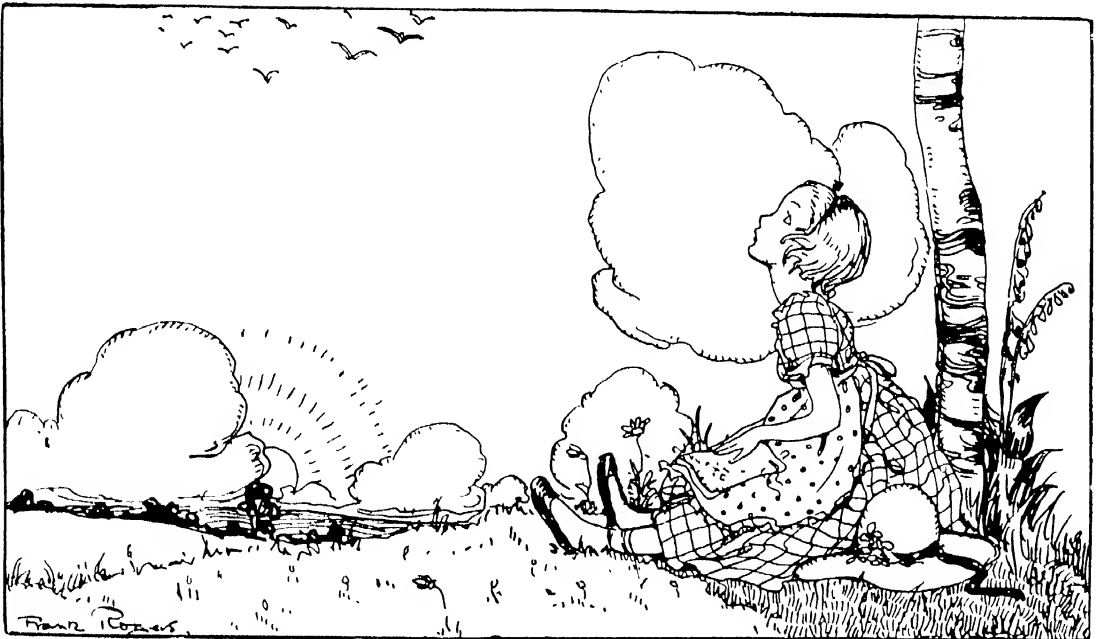
Read Poetry to Them

To most children the charm of poetry will grow as their own experiences widen, *if its appreciation has been skilfully related to the freshness of their own daily adventures.* At each age it is wise for the teacher to read or repeat to the children a good deal of verse without comment or interruption. There should be, as far as possible, no attempt to teach any poem formally for the sake of memorizing it. Little ones learn verse with pleasure; the form of the poem comes to them as the delightful by-product of familiarity. They should be encouraged to memorize the poems that appeal to them. Now and then, especially as the children grow older, periods should be given to the repeating of poems by different children, for the sake of the pleasure that comes from sharing one's favourite verse with others.

Some Well-known Poems for the Five and Six-Year-Olds

Name and Author	Theme and Remarks
<i>More Nursery Rhymes</i> From "Mother Goose."	The following are useful Little Miss Muffet; Little Tommy Tucker, Little Jack Horner; Old Mother Hubbard; Old Woman in a Shoe; Little Boy Blue; Sing a Song of Sixpence; Old King Cole; Bobby Shafto, Mistress Mary; Simple Simon; Wee Willie Winkie, etc
<i>Number Poems</i> "1 and 1 are 2, that's for me and you" (Christina Rossetti.) How many Days has Baby to Play? Ten Little Niggers.	Useful for teaching the days of the week Children will enjoy chalking the little niggers
<i>Poems about Animals, the Weather, and Well-known Things</i> On the Grassy Banks. (Christina Rossetti.) The Clucking Hen. (Anne Hawshawe.) Birdie with the Yellow Bill. (R. L. Stevenson) The North Wind doth Blow. (Old Rhyme.) Twinkle, Twinkle little Star. (Jane Taylor.) The Dandy Little Fellow. (N. M. Garabrant) The Chestnut Burr. (Christine H. Hamilton.) Winter Night. (Mary F. Butts.) Babies all over the World. (Laurence Alma Tadema.) Come, Little Leaves (George Cooper) The Rainbow Fairies. (Old Poem.) The Happy World. (W. B. Rands) I Saw a Ship a-Sailing. (Old Rhyme) Long time Ago (E. Prentiss) A Fairy Song. (E. J. Dillingham.) A Bunch of Golden Keys is Mine. (Old Rhyme) Yes or No. (William Allingham) New Shoes in Town. (M. S. Watts) The Cobbler's Shop. (John B. Tabb.) The Blacksmith Hammers the Whole Day long. (Old Poem.)	A pretty little poem about lambs, which the children learn quickly. A delightful poem that every child should hear. Many will learn to act it The children can play the different things that the birds and animals do, when the north wind blows A few stanzas may be read to the children. A delightful poem about the dandelion to read to the children A good poem for autumn Little ones of six will like to say it To be read when the days grow short. A delightful poem to take when the little ones are hearing about children in other lands For autumn days The children will enjoy acting the part of the leaves Useful when teaching the colours, or the story of the Colour Fairies A happy poem about the bee, the martins, and field mice A summer poem A poem that will amuse the children They can draw the ship or make it of paper A pleasant story poem about a kitten and a mouse A pretty poem about how the fairy folk use the buttercup, daisy, and moss, etc It can be illustrated by the children Useful little poem to teach politeness A poem that little ones can play Little ones will enjoy this poem about new shoes one of which squeaks, especially if they have heard their own squeak A very short story about a boot, a shoe, and a slipper. Children will enjoy modelling or cutting out boots and shoes for a cobbler's shop (see page 149). A poem that the children can play, with a lively refrain

Name and Author	Theme and Remarks
I had a Little Hen. (<i>Old Poem.</i>)	Children will enjoy hearing about the work of the busy little hen.
The New Year. (<i>Dinah Mulock Craik.</i>)	A pretty little poem for children to learn in the New Year.
Help One Another. (<i>G. G. F. Hunting.</i>)	A short easy poem for snowy days.
Who has Seen the Wind? (<i>Christina Rossetti.</i>)	A beautiful poem that all children should know at some time
Twenty Froggies. (<i>George Cooper.</i>)	Little ones like to hear about what the twenty froggies did at school.
The Lamb. (<i>William Blake.</i>)	This poem may be left out if the children are backward.
Over in the Meadow. (<i>G. A. Wadsworth.</i>)	Children will enjoy the repetition in this poem. They will like to make the sounds of the different animals who lived in the meadow "in the sun, in the shade."
Spring. (<i>Celia Thanter.</i>)	A beautiful spring poem to read to the children. Some verses can be learnt by them.
Good-Night and Good-Morning. (<i>Lord Houghton.</i>)	A beautiful little poem to teach children how all things sleep in the evening, and how the sun goes on doing his work.
Snowdrops. (<i>Laurence Alma Tadema.</i>)	A lovely poem for spring days. If the children are backward, it may be left for a year
The Dainty Little Fairy. (<i>J. B. Tabb.</i>)	Musical verses for children to learn for Midsummer Eve.
May Song. (<i>Old Folk Song</i> , beginning "See our garland gay we're bringing.")	Particularly appropriate for May Day.
Santa Claus. <i>He comes in the Night! He comes in the Night!</i> (<i>Old Poem.</i>)	An interesting poem to read to the children at Christmas time.
'Tis the Wind. (<i>From the German.</i>)	To teach the children about the work of the wind.



"Good-Night and Good-Morning" (*Lord Houghton*)

POEMS FOR THE SEVENS AND EIGHTS

WHAT has been said for the little ones applies also to the sevens and eights. We must bear in mind, in teaching them poetry, that they like to talk, sing, act, and dance; they like to draw, paint, and make things; they like to make collections of objects having both temporary and permanent value. They will find added joy in their poems in so far as they enrich the possibilities of doing these things.

Making little books to write the rhymes they like best in, making pictures for the poems they learn, acting them, collecting post cards that illustrate them, etc. There are countless ways in which real and purposeful work can be done in connection with poetry.

Imaginative and Creative Impulse

Just what response or creative return one demands from the children will vary with the poem. Persuading children to share in some form of creative return, that may seem worth while to the teacher, is not always helping the children to find satisfying experiences in their literature. Sometimes it is wise for the teacher to wait for the children's comments and questions, some poems so fill the children with wonder, that they best express their feelings for them in silence, sometimes they want to repeat them or act them, and so on. As far as possible the teacher should give all the members of a group freedom in choosing individual forms of interpretation—some may want to draw, some model, some write, or some repeat the poem.

If one is dealing with children whose experience with poetry has been over-formal or didactic, one of the most effective ways of helping them to rediscover joy in literature is through repeating to them a nonsense poem, such as those found in *Alice in Wonderland*.

Poems for the Seven and Eight-Year-Olds

Name and Author	Theme and Remarks
<i>Number Poems</i>	
How many Seconds in a Minute? (<i>Christina Rossetti</i> .)	This poem may prove a little difficult. An easier one is the well known "Sixty seconds make a minute, something sure you can learn in it."
What will you Give me for my Pound? (<i>Christina Rossetti</i> .)	Children like this rhyme when they begin money sums.
<i>About the Months and Seasons and Familiar Things</i>	
The Months. (<i>Sara Coleridge</i> .)	This is a most useful poem about the months. Children enjoy illustrating it.
January, cold, desolate. (<i>Christina Rossetti</i> .)	Another fine poem about the months, a little more difficult.
Robin's Song of the Seasons. (<i>Old Rhyme</i> .)	Useful when teaching the seasons.
Our Almanack. (<i>T. B. Aldrich</i> .)	A poem full of pleasant sounds and thoughts for each season.
Autumn Fires. (<i>R. L. Stevenson</i> .)	To be read to the children on autumn days.
Child's Song in Spring. (<i>E. Nesbit</i> .)	A lovely poem about trees, to be read to the children and learnt by them.
Robin Redbreast. (<i>William Allingham</i> .)	For autumn days. Children enjoy the lovely refrain.
The Song of the Bee. (<i>Marian Douglas</i> .)	A fine poem about the work of the bee and his song.

Name and Author	Theme and Remarks
The Caterpillar. (<i>Christina Rossetti</i> .)	Useful in connection with nature lessons. Children will enjoy drawing the caterpillar taking his walk.
The Crow. (<i>Miss Alexander</i> .)	Useful for oral composition. The children can think of all the things the crow has seen.
To a Butterfly. (<i>W. Wordsworth</i> .)	A little difficult for some children.
Mooly Cow. (<i>Anna M. Wells</i> .)	A delightful poem about a cow who would not come home to be milked, but only said " Moo-oo-oo "
The Great Brown Owl. (<i>Anne Hawshawe</i>)	Children like cutting out the great owl from brown paper. (<i>See page 491.</i>)
Hush, the Waves are Rolling in. (<i>Old Gaelic Lullaby</i> .)	A beautiful lullaby giving vivid pictures of father, brother and sister working, and baby sleeping at home
The Rock-a-Bye Lady. (<i>Eugene Field</i>)	A very musical lullaby Children enjoy the sounds
My Shadow. (<i>R. L. Stevenson</i> .)	An objective type of poem which children like. They have all seen their shadow and know what it does.
Wishing. (<i>W. Allingham</i> .)	A very musical poem. Children should learn to sing it.
Boats Sail on the River. (<i>Christina Rossetti</i>)	A good poem for children to illustrate
Seven Times One. (<i>Jean Ingelow</i> .)	A pretty nature poem—telling about flowers and creatures dear to children.
Lady Moon. (<i>Lord Houghton</i> .)	A poem children like to play or say in parts—because of its questions and answers
Trees. (<i>Sara Coleridge</i> .)	A useful little poem when children are learning the names of trees
The Boy and the Sheep. (<i>Ann Taylor</i>)	A poem children can play.
Hide-and-Seek. (<i>Henry Van Dyke</i>)	A lovely poem about a game all children know. So musical, that children love to learn it.
To the Ladybird. (<i>C. B. Southey</i> .)	Children like to hear about the ladybird and illustrate this poem
A Friend in the Garden. (<i>J. H. Ewing</i>)	An interesting poem about a toad to read to the children.
Cherries. (<i>F. E. Weatherly</i> .)	An interesting story-poem to read to children
Peasants' Hunting Song. (<i>S. T. Coleridge</i>)	Children will like to play that they are hunters and chant this poem
September. (<i>M. Howitt</i> .)	An easy poem about the fruits of September. Children enjoy illustrating it
The Merry Bells of London. (<i>Old Rhyme</i>)	A poem children love to hear They can draw and colour the different bells
Queen Mab. (<i>Thomas Hood</i> .)	A pretty fairy-poem for children to learn.
The Hallowe'en Elf. (<i>J. B. Tabb</i> .)	Musical verses for autumn days, quickly learnt by the children.
Nurse's Song. (<i>William Blake</i> .)	Children like to play this poem, one being the nurse and the rest of the children playing on the green.
Kit's Cradle. (<i>J. H. Ewing</i> .)	An interesting story of how a naughty kitten found a cosy sleeping place
The Kayak. (<i>Author Unknown</i>)	Children love to learn this little rhyme when they are learning about the Eskimo
Big Smith. (<i>J. H. Ewing</i> .)	An interesting poem about the blacksmith to read to the children.
Where Go the Boats? (<i>R. L. Stevenson</i> .)	A beautiful poem. Children can draw their boats on a river or make paper boats
Bed-Time. (<i>Thomas Hood</i> .)	A pleasant picture of plants and animals going to sleep
The Wonderful Weaver. (<i>George Cooper</i> .)	A good poem for winter days.
April. (<i>E. S. Phelps</i> .)	A short but vivid picture of April. Easily learnt by the children
How far is it to Bethlehem? (<i>Frances Chesterton</i>)	A beautiful Christmas poem to teach the children.
A Boys' Song. (<i>James Hogg</i> .)	Excellent while teaching children about country life
The Harvest. (<i>G. A. C. Henderson</i> .)	A pretty little poem about bread, to be learnt by the children.

NUMBER POEMS

THE DANDELION CLOCK

What is the time?
Would you like to know?
Take a dandelion clock,
And gently blow:
One, two, three, four,
Five, six—but it mustn't be more,
For when it is seven,
It's time for your bed,
So I always blow less,
On a dandelion head.

E. M. Adams



MY SHILLING

I had a silver shilling,
My Grandad gave it me,
I was afraid I'd lose it,
It was so very wee.

Mother said she'd change it
For pennies, big and brown,
She gave me TWELVE, oh, what a lot,
To spend in London town!

I'd like to change for ha'pennies,
But I couldn't carry all
The TWENTY-FOUR that I should have,
My pockets are too small!

Ellen M. Adams.

TEN LITTLE BIRDS

Note —This poem should be read to the children, while ten of them act the parts of the little birds. First one child runs out "flapping its wings," a second joins him, and so on

One little fluffy bird, in the sky he flew,
Another came and joined him. Then there were two.

Two little fluffy birds sitting on a tree,
Another came and sat there. Then there were three

Three little fluffy birds hopping round the door,
One came to hop as well. And that made four.
Four little fluffy birds, very much alive,
Went to fetch a little friend. Then there were five.

Five little fluffy birds, perching on some sticks,
Along came another one And that made six.
Six little fluffy birds, flying up to heaven,
One joined them in the sky. Then there were seven.

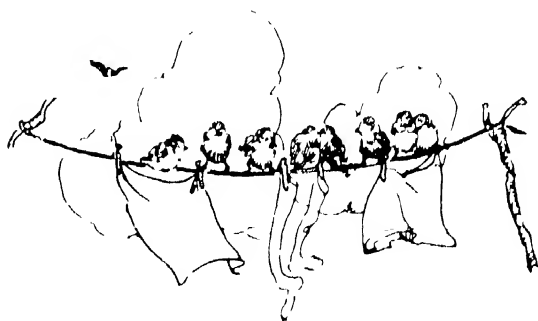
Seven little fluffy birds, sitting on a gate,
Another came and sat with them. Then there were eight

Eight little fluffy birds on a washing line.
One more came and swung there. Then there were nine.

Nine little fluffy birds singing in the glen.
Mother came to call them home. So that made ten.

Ten little fluffy birds, in a little nest,
Snuggle down and chirrup low, "It's nice to have a rest."

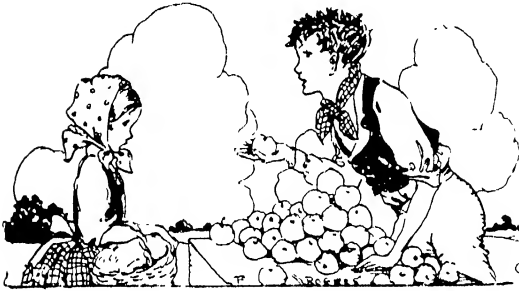
Vera Bowyer.



THINK OF A NUMBER

Think of a number!
 A little one will do,
 Thought of your number?
 Well, multiply by 2.
 Now just add on 8,
 It will not take you long
 Now divide by 2.
 You really can't go wrong!
 Take off the number
 You thought about before,
 And if you are right!
 Your answer will be 4!

Olga Sheirson.



FINE APPLES!

Here are apples, red and yellow,
 Lovely apples, ripe and mellow!
 Won't you come and buy?
 Oh, won't you come and buy?

Apples fit for any queen,
 The finest fruit you've ever seen,
 So won't you come and buy?
 Won't you come and buy?

Lovely apples, very *cheap*,
 For a penny quite a *heap*,
 So, please do come and buy!
 Won't you come and buy?

I will *give* you two or three,
 If a kiss you'll give to me,
 So won't you come and buy?
 Oh, please, *do* come and buy!

E. M. Adams.

EIGHT AT PLAY

Note.—This poem is for the teacher to read, while the children take part in the action.

ONE little girl
 Ran out one day,
 Met a friend,
 Which made Two to play.

Came Two more,
 And that made FOUR,
 Twice as many,
 As there were before.

"If we could now
 Be twice as many,
 We should be EIGHT,
 To play 'Catch Penny.'"

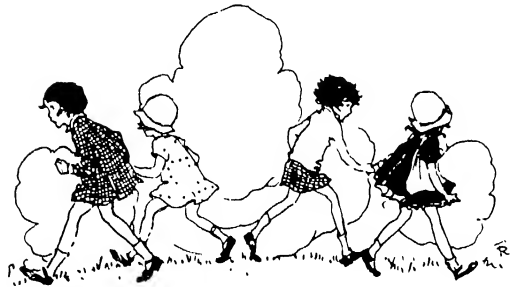
As they wished—
 There through the gate
 Hurried FOUR more,
 So there *were* EIGHT!

Of the EIGHT
 Two ran away,
 So SIX were left
 To play that day.

Two went home,
 So they were FOUR,
 Just as they
 Had been before.

Then in PAIRS
 They ran pit-a-pat,
 One COUPLE this way,
 And one COUPLE that.

Ellen M. Adams.

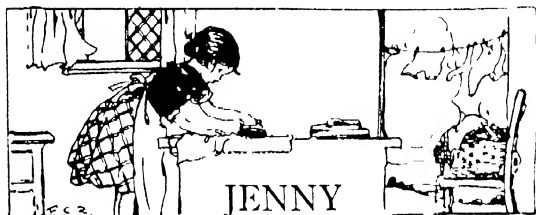


POEMS TO READ AND SAY

MORNING PRAYER

We put our hands together
And shut our eyes up tight.
We send our thoughts to Heaven
And say with all our might
" Oh Thou who made the daylight
And loved us through the night,
Keep us, and watch and help us,
And guide us now 'tis light."

Vera Bowyer.



Jenny, little Jenny, you must get up in the morning;

Get up very early---not a minute after five
Granny likes a pot of tea made, just as day is dawning.

Light the fire and boil the kettle, Jenny Look alive!

Jenny, little Jenny, you must dust and do the baking.

Wash up all the dishes---see the children off to school.

Mother wants the shopping done---and all the beds want making

Every day the knives want cleaning, Jenny, as a rule.

Jenny, little Jenny, you must do a bit of mending---
Do a bit of ironing---pack the clothes and things away.

Scrubbing here and rubbing there -the work seems never-ending.

But, at last, now supper's over, Jenny, you can play.

Play? She's surely very quiet Let us go and peep. . . .

Sitting by the kitchen table, Jenny's fast asleep!

Marion St. John Webb.

THE CAROL SINGERS

There's small Tom, and big Tom,
And Meggy from the store,
And Dick who holds the lantern,
And half-a-dozen more.
It's big Tom that's knocking now,
He gives a rat-tat-tat!
The knocker's very high up, but
He can just reach to that.

There's thin Jim, and fat Jim,
And Sally's brother Pat,
And little Mary Mitsy
Who's singing very flat
It's little Mary Mitsy now
That's standing on the mat
And rattling at the letter-box--
She can just reach to that.

The carol singers at our door,
They sing a bit, but knock much more

Marion St. John Webb.

SHIPS GO SAILING

Ships go sailing over the water,
Ships go sailing over the sea
My ship sails in a little tin bath,
This side to that side, and back to me

Ships go sailing, carrying cargo,
Gold and silver, timber and gram.

My ship carries a threepenny-bit,
This side to that side, and back again.

Ships go sailing, under the storm-clouds.

Ships are wrecked when the rough wind blows
My ship sinks in a little tin bath--
Shake it and splash her, and down she goes!

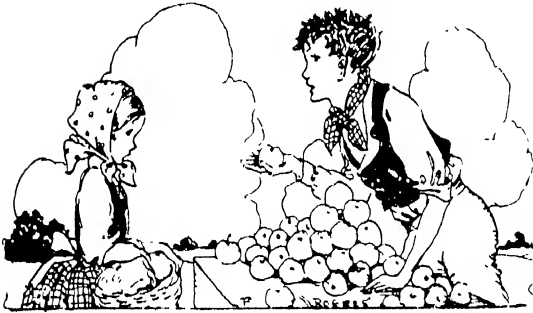
Marion St. John Webb



THINK OF A NUMBER

Think of a number!
 A little one will do,
 Thought of your number?
 Well, multiply by 2.
 Now just add on 8,
 It will not take you long
 Now divide by 2.
 You really can't go wrong!
 Take off the number
 You thought about before,
 And if you are right!
 Your answer will be 4!

Olga Sheirson.



FINE APPLES!

Here are apples, red and yellow,
 Lovely apples, ripe and mellow!
 Won't you come and buy?
 Oh, won't you come and buy?

Apples fit for any queen,
 The finest fruit you've ever seen,
 So won't you come and buy?
 Won't you come and buy?

Lovely apples, very *cheap*,
 For a penny quite a *heap*,
 So, please do come and buy!
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I will *give* you two or three,
 If a kiss you'll give to me,
 So won't you come and buy?
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E. M. Adams.

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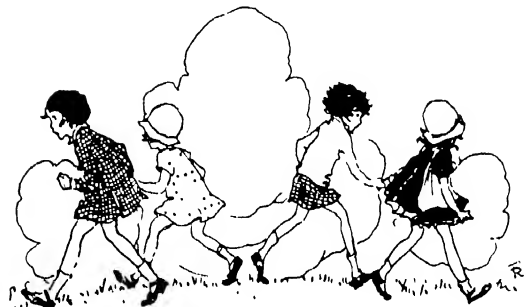
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 They ran pit-a-pat,
 One COUPLE this way,
 And one COUPLE that.

Ellen M. Adams.



THE RAINBOW

Above the far-off purple hills,
 There hung a cloud of silver rain,
 And soon the gleaming raindrops danced
 Down from the sky towards the plain
 And as they danced their way to earth,
 They met the children of the sun,
 The sunbeams, who in merry sport,
 Soon joined the raindrops in their fun

And as the silver and the gold,
 Danced to and fro in merry game,
 They looked like many-coloured gems—
 And that is how the rainbow came!

Olga Sheirson

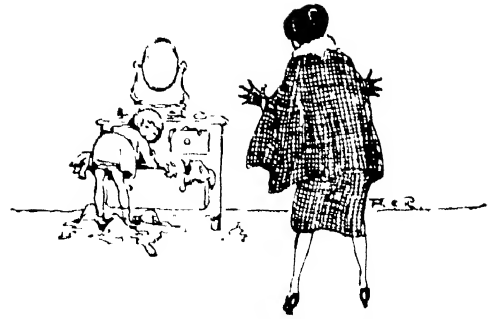
A COUNTRY WALK

Oh! how I would love to go
 Through a woodland path I know!
 Down the path, and in between
 Silver birches decked in green
 Through the wood and by the stream,
 Where the water-lilies dream,
 And the goss'mer dragon-flies
 Dart about with jewelled eyes—
 Down, and thro' the bracken frond,
 'Till I reach the quiet pond,
 Where the waving meadow-sweet
 Sees its picture at its feet:

There beside a mossy stone.
 Sits a yellow frog alone—

Home along, and down the road
 Where the woodman halts his load,
 'Cross the clover-scented lea,
 Haunted by the dusty bee,
 Thro' the fields and 'cross the stile,
 Where the shepherd rests awhile,
 Seated on a fallen log,
 Talking to his shaggy dog;
 Past the sheep and up the hill,
 Shadowed by the creaking mill;
 Down the hill and thro' the lane—
 Past the church, and home again

Olga Sheirson



“STAYING PUT”

They say I am like Auntie Jean
 So named me Jean, the same,
 But really I am not like her
 Except of course my name,
 For Auntie Jean is tall and slim
 But I am short and fat
 My hair flops round just anyhow
 But hers keeps smooth and flat

I think I am a tidy child,
 But Auntie says—“Oh no,
 Your room is like a rummage sale
 And nothing is ‘just so’”
 When Auntie Jean goes to *her* room
 Or packs to go away
 She always finds the things she wants
 I have to hunt all day.

“Well, ev’rything goes in its place”
 Says Auntie Jean, I know,
 But if it’s filled with something else,
 Where *are* the things to go?
 The things I really put away
Will not stay put, you see,
 And that’s the biggest difference
 ‘Tween Auntie Jean and me.

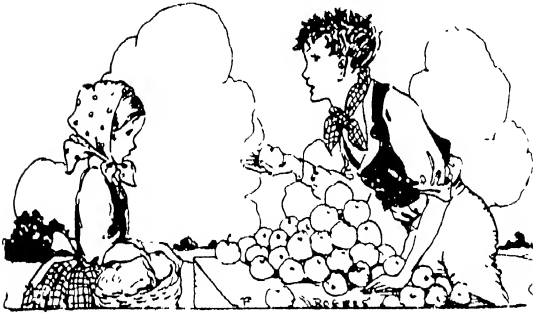
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Olga Sheirson.



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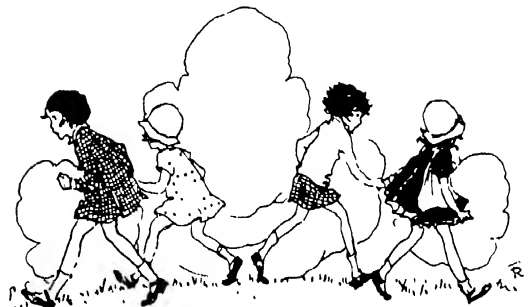
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Ellen M. Adams.



TYROLEAN TALES

I. THE GNOMES

In among the olive groves,
Or higher in the snow,
Where the icy river slips,
Where the white narcissi blow,
Up, from out the mountain clefts,
Creeping round the mountain towers,
Hiding 'neath the poppy flowers,
Come the little mountain gnomes.

On their heads small caps of fur,
Fur sacks slung behind,
Some are digging deep for salt,
Some are seeking silver mines.
Only when our land is free,
When there are good times in store,
Just a month or so before,
Come the little laughing gnomes.

"Mother, can the gnomes be seen?"
Whispers Baby Hans at night.
"By none other than the Queen,
Riding on a pony white,
Through the forest glades at night,
Can the little elves be seen
'Tis but she who has the right,
Just to see a mountain elf,
Bringing joy and bringing wealth.
Up the land and down."

When ill luck or war is near,
When no noble prince is here,
Then the gnomes all disappear.
Far within the forest firs,
Deep down in the silver mines,
Men can hear their hammer chimes,
Ringing up and down

But when happiness is here,
Hans grows good and Gretchen fair,
Valleys sing with silken corn,
Life is full and free from care
Creeping round the mountain towers,
Hiding neath the poppy flowers,
Peeping into sunny homes,
Come the little mountain gnomes.

I. K. Nagel.



2. HARVEST TALE

If Brother Hans will take me—
And he's promised if I'm good—
I'm going down one summer night,
To walk right through the wood.
To look into the mountain lake,
And hear the sound the aspens make.

But Hans has said that we must wait,
Until the harvest moon appear,
Then we shall see the queer church spire,
The quaint old houses buried near,
And hear the tall church belfry knell,
When the white moon witch rings its bell.

For down beneath the silver lake,
Beyond the shadow of the pine
They say a village lies asleep,
Which only wakes at harvest time.
And last corn-cutting Hans was there
And now it is my turn, this year.

I. K. Nagel



3. THE WEAVER

Out beyond the village,
Just past the big fir trees,
There lives a little old man,
With bent and twisted knees.

Men say he was a weaver
Before he grew so old,
So good, that once he made the Queen
A gown in cloth of gold.

The grown-ups of the village
Avoid old Weaver Wil'.
They always pass the other way,
For fear, they say, of ill.

The children of the village,
Like Otto, me and Fritz,
We love to go and talk to Wil',
Or watch him where he sits.

He tells us eerie bird tales,
And elfin ones as well,
Or how the "White Witch of the Moon."
Rings nightly the lake bell.

And sometimes, when I ask of Wil',
Of all the things he's seen,
He tells me all the silks he used,
To dress our Lady Queen.

The silver from the moonbeam's ray,
The mountain top's royal mauve,
The blue from summer speedwell's flower
Were all the threads he wove.

But Wil' once whispered, when I'm grown,
And twice as tall as he,
He'll weave a cloth from sunset's hues,
To make a gown for me.

I. K. Nagel.



POEMS TO SAY AND ACT FOR THE SIX AND SEVEN-YEAR-OLDS

THE POSTMAN

I'd like to be a postman
Rat-tat-tatting on the door.
With letters for each single house,
I'd leave them three or more.

I'd always have some parcels
Full of books and sweets and toys.
And keep them for the places where
Live lonely girls and boys.

I'm sure they'll keep me busy
When next Christmas comes around.
I'll have a sack, twice daily,
Full of presents, I'll be bound!

Just think of all the letters
And the parcels there will be!
Oh, Yes! I think a postman is
The proper life for me.

Vera Bowyer.

THE GARDENER

I'd like to be a gardener with
Spade and fork and hoe.
With pointed shears I'd clip the hedge,
And all the grass I'd mow.

I'd grow potatoes, beans and peas,
And strawb'ries ripe and red.
With lovely flowers of every kind
I'd fill each garden bed.

I'll roll my sleeves up while I work
And when the job is done
I'd smoke a little stubby pipe
And sit out in the sun!

Vera Bowyer.



THE ROAD MENDER

I'd like to be the man who puts
The tar upon the road,
And tears the ground with such a din,
And carts a heavy load

He walks about upon the tar.
His boots don't seem to matter
The smell of tar is simply fine
He lays the bricks down line by line.
Oh! How I wish the job was mine,
With lots of tar to scatter!

Perhaps I'd light the lamps at night
And hang them up for warning.
And sit beside a roaring fire
And watch until the morning.
I really think that tarring's nice.
I'd like to try it once or twice.

Vera Bowyer.

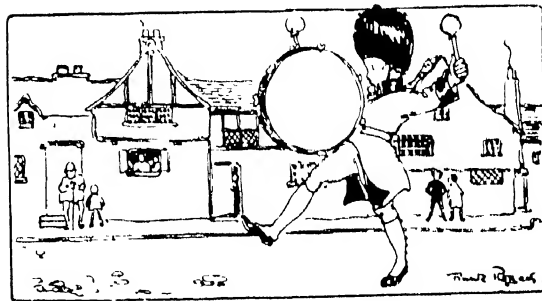
THE BUS CONDUCTOR

I'd like to be conductor on
A 'bus that goes to town.
And ask the people for their fares
And help them up and down.

I'd wear a uniform of blue,
And have a bag for money
"Pass right inside, Sir! please" I'd say
"All those for Oxford St. this way."
"Yes, ma'am, there's twopence each to pay."
"Yours is a penny, Sonny."

To start the 'bus I'd ring a bell,
And run upstairs and down—
The best conductor on the route
That travels up to Town.

Vera Bowyer.



THE BAND

First child

If I were a drummer, and had a big drum,
I'd rub-a-dub-dub, I'd make it hum,
I'd bang, bang, bang, 'twould make you frown,
And my drum would be heard all over the town!

Second child

If I were a fiddler I'd take my bow,
I'd fiddle away, now fast, now slow,
I'd make it laugh, I'd make it cry,
And my fiddle you'd hear from far and nigh!

Third child

If I had a trombone I'd puff and I'd blow,
I'd push out my arm as far as 'twould go,
I'd boom boom, boom, 'twould be such fun,
But you'd cover your ears, and away you'd run!

E. M. Adams.

Note. The children continue the action all through the poem

HELPING MOTHER

When Mummy says "Too busy, dear,
Now run away and play,"
I always ask if I can help
And then she lets me stay.

For I can clean, and I can dust
And tidy any room,
And Mummy says I really am
Quite handy with a broom.

Sometimes I polish spoons and forks,
Sometimes I sweep the stairs,
And then I shake the little mats
And polish all the chairs.

Then I can help with washing-up,
And put the things away,
There are so many little jobs
That must be done each day.

When there is sewing to be done
I put the cottons straight,
And thread some needles ready too,
Then Mummy need not wait.

And when the little jobs are done,
I do feel rather grand,
For Mummy says "You are a help,"
And calls me her "right hand"!

Olga Sheirson.



TEA-TIME

I know how to get tea ready,
My mother showed me how,
And then I tried all by myself
And I can do it now.

I spread the cloth on, smooth and flat,
And see that it is straight.
Then, I must put a little knife
For everybody's plate.

Some cups and saucers on a tray,
The milk and sugar too.
I never *do* forget the jam—
For I like jam, don't you?

At last I look around for flow'rs
To make the table bright,
And mother likes to see them there,
She smiles, and says "That's right!"

Olga Sheirson.



POEMS THAT EVERY CHILD SHOULD KNOW

I SAW A SHIP A-SAILING

I saw a ship a-sailing,
A-sailing on the sea;
And it was full of pretty things
For baby and for me.

There were sweetmeats in the cabin,
And apples in the hold;
The sails were made of silk,
And the masts were made of gold

The four-and-twenty sailors
That stood between the decks,
Were four-and-twenty white mice,
With chains about their necks

The captain was a duck,
With a packet on his back,
And when the ship began to move,
The captain cried, "Quack, quack!"

Old Rhyme

COME, LITTLE LEAVES

"Come, little leaves," said the wind one day,
"Come o'er the meadows with me and play;
Put on your dresses of red and gold,
For summer is gone and the days grow cold."

Soon as the leaves heard the wind's loud call,
Down they came fluttering, one and all;
Over the brown fields they danced and flew,
Singing the sweet little song they knew

Dancing and whirling, the little leaves went,
Winter had called them, and they were content,
Soon, fast asleep in their earthy beds,
The snow laid a coverlet over their heads.

J. Cooper.

LONG TIME AGO, OR LITTLE KITTY

Once there was a little kitty
Whiter than snow;
In a barn she used to frolic,
Long time ago

In the barn a little mouseie
Ran to and fro,
For she heard the kitty coming,
Long time ago.

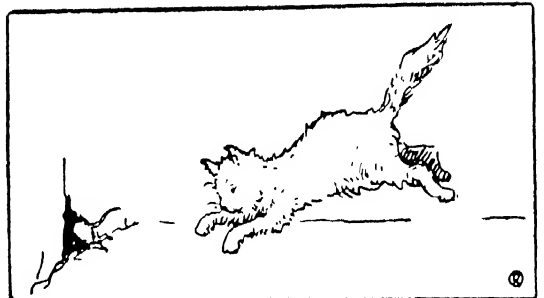
Two eyes had little kitty
Black as a sloe,
And they spied the little mouseie
Long time ago.

Four paws had little kitty,
Paws soft as dough,
And they caught the little mouseie
Long time ago.

Nine teeth had little kitty
All in a row;
And they bit the little mouseie,
Long time ago.

When the teeth bit little mouseie,
Little mouse cried "Oh!"
But she got away from kitty,
Long time ago

E. Prentiss.



SLEEP, BABY, SLEEP

Sleep, baby, sleep!
 Thy father watches his sheep;
 Thy mother is shaking the dreamland tree,
 And down comes a little dream on thee.
 Sleep, baby, sleep.

Sleep, baby, sleep!
 The large stars are the sheep;
 The little stars are the lambs, I guess;
 And the gentle moon is the shepherdess.
 Sleep, baby, sleep.

From the German.



"Sleep, baby, sleep"

THE FAIRY

Where the bee sucks, there suck I:
 In a cowslip's bell I lie;
 There I couch when owls do cry;
 On the bat's back I do fly
 After summer merrily.
 Merrily, merrily shall I live now
 Under the blossom that hangs on the bough

Shakespeare.

GOOD-NIGHT AND
GOOD-MORNING

A fair little girl sat under a tree,
 Sewing as long as her eyes could see,
 Then smoothed her work, and folded it right,
 And said, "Dear work! good-night! good-
 night!"

Such a number of rooks came over her head,
 Crying "Caw! caw!" on their way to bed;
 She said as she watched their curious flight,
 "Little black things! good-night! good-night!"

The horses neighed, and the oxen lowed;
 The sheep's "Bleat! bleat!" came over the
 road;
 All seeming to say, with a quiet delight,
 "Good little girl! good-night! good-night!"

She did not say to the sun "Good-night!"
 Though she saw him there like a ball of light,
 For she knew he had God's time to keep
 All over the world, and never could sleep.

The tall pink foxglove bowed his head,
 The violets curtsied and went to bed;
 And good little Lucy tied up her hair,
 And said, on her knees, her favourite prayer.

And while on her pillow she softly lay,
 She knew nothing more till again it was day;
 And all things said to the beautiful sun,
 "Good-morning, good-morning! our work is
 begun."

Lord Houghton



"She knew nothing more till again it was day"

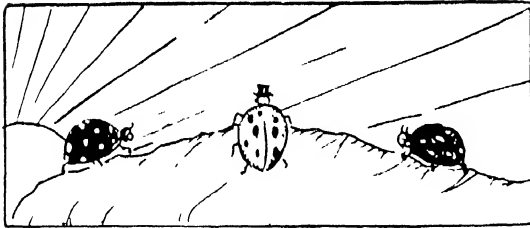
TO THE LADYBIRD

Ladybird! Ladybird! Fly away home;
The field-mouse is gone to her nest,
The daisies have shut up their sweet sleepy eyes,
And the bees and the birds are at rest.

Ladybird! Ladybird! Fly away home;
The glow-worm is lighting her lamp,
The dew's falling fast, and your fine speckled wings
Will be wet with the close-clinging damp.

Ladybird! Ladybird! Fly away home;
The fairy-bells tinkle afar;
Make haste, or they'll catch you, and harness you fast
With a cobweb, to Oberon's car.

C. B. Southey



LADY MOON

"Lady Moon, Lady Moon, where are you roving?"

"Over the sea."

"Lady Moon, Lady Moon, whom are you loving?"

"All that love me."

"Are you not tired with rolling, and never Resting to sleep?"

Why look so pale and so sad, as for ever Wishing to weep?"

"Ask me not this, little child, if you love me, You are told;

I must obey my dear Father above me, And do as I'm told."

"Lady Moon, Lady Moon, where are you roving?"

"Over the sea."

"Lady Moon, Lady Moon, whom are you loving?"

"All that love me."

Lord Houghton.

SEPTEMBER

There are twelve months throughout the year
From January to December;
And the primest month of all the twelve
Is the merry month of September.

Then apples so red
Hang overhead,
And nuts ripe-brown
Come showering down,
In the bountiful month of September.

There are flowers enough in summer-time,
More flowers than I can remember,
But none with the purple, gold and red
That dyes the flowers of September!
The gorgeous flowers of September!
And the sun looks through
A clearer blue,
And the moon at night
Sheds a clearer light
On the beautiful flowers of September.

M. Hewitt

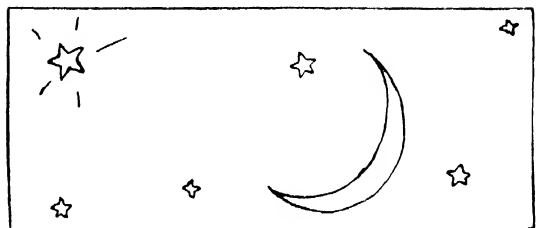
TWINKLE, 'TWINKLE, LITTLE STAR

Twinkle, twinkle, little star,
How I wonder what you are!
Up above the world so high
Like a diamond in the sky.

When the blazing sun is gone
When he nothing shines upon,
Then you show your little light,
Twinkle, twinkle, all the night.

Then the traveller in the dark
Thanks you for your tiny spark!
He could not see which way to go,
If you did not twinkle so.

Jane Taylor.



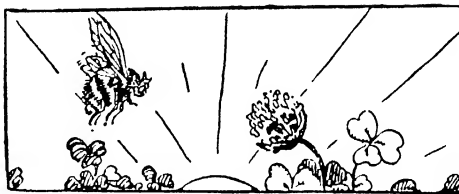
THE DANDELION

"O dandelion, yellow as gold,
What do you do all day?"
"I just wait here in the tall green grass
Till the children come to play."

"O dandelion, yellow as gold,
What do you do all night?"
"I wait and wait till the cool dew falls,
And my hair grows long and white."

"And what do you do when your hair is white,
And the children come to play?"
"They take me in their dimpled hands,
And blow my hair away."

Mrs. Erskine.



BUMBLE-BEE AND CLOVER

Came a roaring bumble-bee,
Pockets full of money,
"Ah, good morning, Clover sweet,
What's the price of honey?"
"Help yourself, sir," Clover said,
"Bumble, you're too funny;
Never Clover yet so poor,
She must sell her honey."

